

COUNTWAY LIBRARY



HC 31E M

THE FRANCIS A. COUNTWAY LIBRARY OF MEDICINE
HARVARD MEDICAL LIBRARY-BOSTON MEDICAL LIBRARY



Digitized by the Internet Archive
in 2015

<https://archive.org/details/indianamedicinej8316indi>

INDIANA MEDICINE

The Journal of the Indiana State Medical Association

January 1990

Vol. 83, No. 1

Highlights of 1989 Annual Meeting

MA 02115

N.E. JOURN OF MED
10 SHATTUCK STREET
BOSTON

MASSACHUSETTS
SOCIETY OF MEDICINE
BOSTON, MA 02115

JAN 29 1990

Your new ISMA
Agency formed
specifically to
provide extremely
competitive
insurance and
financial services
products exclusively
to ISMA members,
their families and
employees

Endorsed by



ISMA *TENURE*

LOW COST TEN YEAR TERM INSURANCE

featuring...

- low, level premium
- level premium guaranteed for ten years
- current rates thereafter with no proof of insurability
- renewable to age 100
- convertible to permanent insurance to age 65
- waiver of premium for disability
- coverage for additional insureds

For a quote, additional information and to apply for cover age,
contact

Affiliated Physicians Services, Inc. toll free.
1-800-442-ISMA

INDIANA MEDICINE

The Journal of the Indiana State Medical Association

January 1990

Vol. 83, No. 1

THE FRANCIS A. CO'INTWAY
LIBRARY OF MEDICINE
BOSTON MA

JAN 29 1990

scientific contributions

CME

Evaluation and management of goiter in childhood and adolescence	10
Sentinel symptoms and signs of intracranial aneurysms.....	20
Human pulmonary dirofilariasis.....	24
Confirmation of metastatic prostatic carcinoma to lung by immunohistochemistry	28
Adolescent pregnancy: Psychosocial issues.....	30

features

1989 ISMA convention highlights.....	34
1989 ISMA convention coverage	37
ISMA Fifty Year Club	63



Cover story on page 34. Photo by Ron Hanson, Indianapolis. Design by Diane Alfonso, Indianapolis. Photo location courtesy of the Westin Hotel, Indianapolis.

■ departments

stethoscope	3
what's new	4
cme calendar	8
drug names	15
cme quiz	16
resolutions	48
auxiliary report	64
isma leadership	84
news briefs	86
obituaries	89
people	90
classifieds	92

Why does JACKSON & COKER *recruit more physicians each year than any other company?*

- ☐ Largest pool of available physicians in the nation
- ☐ Network of 7 regional offices nationwide
- ☐ Expertise that produces unparalleled results in recruiting quality physicians
- ☐ Proven system that produced over 1,000 placements in the last 3 years.



**JACKSON
& COKER**

(800) 888-0121

With Regional Offices In:

ATLANTA-DENVER-PHOENIX
DALLAS-ST. LOUIS
PHILADELPHIA

INDIANA MEDICINE

Devoted to the interests of the medical profession and public health in Indiana since 1908.

EDITOR

Frank B. Ramsey, M.D.

MANAGING EDITOR

Tina Sims

EDITORIAL ASSISTANT

Toni Settle

BUSINESS MANAGER

Richard R. King

CIRCULATION

Dotty Martens

EDITORIAL BOARD

Elton Heaton, M.D.

Richard N. Dexter, M.D.

(Terms expire Dec. 31, 1991)

Gary M. Ayres, M.D.

Robert C. Ziss, M.D.

(Terms expire Dec. 31, 1989)

Thomas J. Conway, M.D.

I.E. Michael, M.D.

(Terms expire Dec. 31, 1990)

Mike Agostino

Mark Rodefald

(Medical students)

CONSULTING EDITORS

Steven C. Beering, M.D.

Charles A. Bonsett, M.D.

Alvin J. Haley, M.D.

Rodney A. Mannion, M.D.

Alan T. Marty, M.D.

W.D. Snively Jr., M.D.

INDIANA MEDICINE (ISSN 0746-8288) is published monthly by the Indiana State Medical Association. Second-class postage paid at Indianapolis, Ind., and additional mailing offices.

Address correspondence relating to editorial material, advertising or subscriptions to: INDIANA MEDICINE, 3935 N. Meridian St., Indianapolis, IN 46208. Phone (317) 925-7545 or 1-800-969-7545 (in Indiana only).

Annual subscription rates for nonmembers: \$24 domestic, \$26 Canada, \$27 foreign. Medical library rates: \$22 domestic, \$23 Canada, \$24 foreign. Full-time Indiana medical students: \$12. Single copies not available. Subscriptions are renewable annually.

POSTMASTER: Send address changes to INDIANA MEDICINE, Indiana State Medical Association, c/o Membership Department, 3935 N. Meridian St., Indianapolis, IN 46208.

Views expressed do not necessarily reflect the opinions of the editors. No copyright is claimed, unless specifically indicated. Copyright rests solely with authors, who are responsible for statements in their articles. Scientific and editorial contributions are accepted for exclusive publication, subject to editorial requirements. Instructions for authors available upon request.

All issues since 1967 are available on microfilm from University Microfilms International, 300 N. Zeeb Road, Ann Arbor, MI 48106. Indexed in *Index Medicus* and *Hospital Literature Index*.

Advertising rates and data available upon request. INDIANA MEDICINE reserves the right to accept or reject advertising copy.

ISMA conference topics include radon, media and risk management

The 1990 Indiana State Medical Association leadership conference will be held Saturday, March 24, at the Holiday Inn North in Indianapolis. The conference will include a day-long seminar on radon, sponsored by the American Medical Association and the Environmental Protection Agency; a day-long workshop on "Medicine, Media and Microphones," limited to 15 participants; half-day sessions on chronic diseases in physicians' families, sponsored by the ISMA Commission on Physician Assistance and the ISMA Auxiliary; and half-day sessions on risk management, conducted by Barbara Killila of Physicians Insurance Co. of Indiana. The radon seminar is approved for four hours of Category I continuing medical education credit. The other three programs will run concurrently with the radon seminar. The pre-registration fee is \$100 for physicians, \$50 for residents and \$25 for guests. Registration at the door will be \$125 for physicians and \$75 for residents. For more information, call Denise Le Doux at the ISMA office, (317) 925-7545 or 1-800-969-7545.

Congress approves physician payment reimbursement reform

The U.S. Congress has passed a three-part set of Medicare Part B physician payment reimbursement reforms that will be phased in over six years. These reforms will replace the current reasonable charged-based system of fees. A model fee schedule will be published by Sept. 1, 1990. Some highlights of the reforms are:

- Under the new system, fees will be determined by a resource-based relative value scale, to be implemented between 1992 and 1996.
- Expenditure targets (ETs), which would have mandated annual reductions in Medicare payments for medical services, are not part of the reform.
- The Medicare volume performance standard (MVPS) that is part of the reform is a mechanism to monitor and understand the underlying basis for changes in the volume of Medicare physician services. The MVPS requires the Secretary of Health and Human Services to isolate specific sources of Part B increases, analyze the underlying causes and report those results to Congress and the public. This means the HHS secretary cannot ignore real factors behind the growth in expenses for patient care, such as patient demand, new technology and the aging and growth of the Medicare population. No such requirement was in the proposed ET provision.
- Physicians in rural and urban health manpower shortage areas will receive a 10% payment bonus starting in 1991.
- After Sept. 1, 1990, physicians must use the standard Part B Medicare claim form. All claims must be filed on behalf of beneficiaries within one year of providing the service. If the deadline is missed, payments will be reduced by 10% on assigned claims and sanctions may be imposed by the Department of Health and Human Services on unassigned claims. For more complete information on the reforms, see the January issue of *ISMA Reports*. □

■ what's new

Systems Plus Inc. unveiled a new version of The Medical Manager software program that allows patient and insurance data to be automatically imported or exported between doctors' offices and hospitals, laboratories and other clinics or institutions. Version 7.0 of The Medical Manager offers a Data Merge Option that can be used to write programs that download data from hospitals and other Medical Manager programs and convert data for uploading to The Medical Manager. The option also can automatically validate insurance claims, post electronic insurance remittances and perform real-time transaction tracking.

Siemens Medical Systems Inc. has introduced a lightweight, compact patient transport monitor, the Sirecust 630. The unit provides data acquisition, display and signal processing capabilities as patients are moved to and from the operating room, recovery room or intensive care unit and for emergency situations. The device monitors EKG, noninvasive blood pressure, invasive pressures and temperature.

TAP Pharmaceuticals, a joint venture of Abbott Laboratories and Takeda Chemical Industries of Japan, has received approval from the U.S. Food and Drug Administration to market Lupron Depot, a new, once-a-month formulation of its drug Lupron (leuprolide acetate). Lupron is used in the palliative treatment of advanced prostate cancer. In most men, the growth and spread of prostate cancer is heavily dependent on the male hormone testosterone. Lupron, when given continuously, shuts down testosterone production.

Brentwood Instruments Inc. has introduced the RhythmScan Full Disclosure Superimposition Holter. The RhythmScan is a compact, noninvasive Holter Monitor and records every heart-beat for a 24-hour period and stores all data on analog tape. A full disclosure printout is always available, and complete verification of all ECG waveforms can be viewed by the true superimposition high-resolution scope.

Wampole Laboratories is offering a literature package featuring its One-Step hCG Pregnancy Test. The test device offers 25mIU/mL sensitivity while requiring less than one minute for set-up with no additional steps before reading results. The test does not require multiple reagents, time-dependent additions, pretreatment of sample (urine or serum) or waiting between steps.

CytoSciences Inc. has developed a new test called LungCheck that smokers can take at home. The test analyzes the effects of irritants on the lungs, gives smokers the status of their pulmonary health and shows them a color photo of how their lung cells look as compared to normal ones. Individuals are instructed to breathe deeply during their morning shower, cough vigorously and expectorate the sputum in a con-

tainer that they may mail to the CytoSciences laboratory. Several large companies have used LungCheck in their smoking cessation programs.

The CompuServe Information Service has added a new reference service, Health Database Plus, to its offering of health-related databases. The new service provides a collection of articles and reference resources on health, medicine and fitness. It includes three types of materials: full-text articles from popular and professional health and fitness magazines, lay-oriented abstracts of articles from professional medical journals and health-related full-text articles from general consumer publications.

The Joint Commission on Accreditation of Healthcare Organizations has published *Quality Assurance in Managed Care Organizations*, a book that unravels the complexities of quality assurance in health maintenance organizations and other managed care services. The book offers advice on how to overcome obstacles to the development of a structured quality assurance program and provides examples of quality assurance and risk management plans and data collection forms.

Eastman Kodak Co. has introduced the Kodak Ektascan Image Manager (KEIM). The product will enable hospitals to connect up to three electronic imaging devices to the Kodak Ektascan Laser Printer and allow filming from all three devices to occur simultaneously. The system has dual console control that enables the printing function to be controlled from either the operator's or the physician's console. □

News of what is new in the medical supply industry is composed of abstracts from news releases. Each item published does not necessarily constitute an endorsement of a product or recommendation for its use by INDIANA MEDICINE or by the Indiana State Medical Association.

"I want a malpractice carrier that knows how to fight. That's why I'm with Medical Protective."

At Medical Protective, fighting for our doctors is our number one priority. We know we're not just insuring your finances. We're protecting your professional reputation, an asset no amount of insurance can replace.

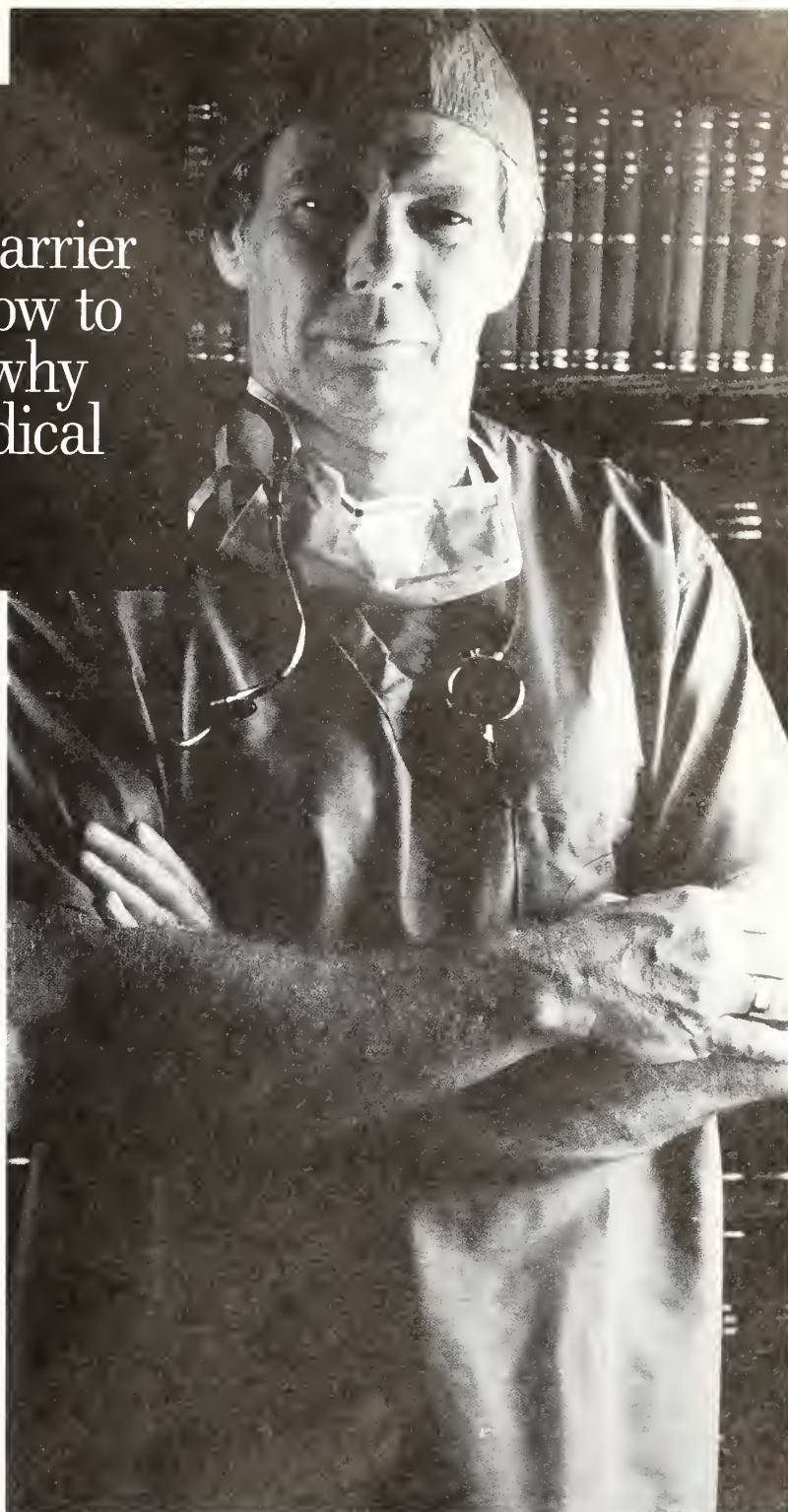
And when we go to battle, our winning record is unsurpassed. The reasons are simple.

First, no one knows more about defending doctors than we do. We invented professional liability insurance 90 years ago and have been defending doctors ever since.

Second, since our inception we have employed only the most experienced and skilled malpractice lawyers in your area. We will never waver from this commitment.

Third, commitment of this kind requires financial strength and stability. With nearly a billion dollars in assets and a continuous A.M. Best A+ (Superior) rating, we don't have to make individual case decisions based on the bottom line. We have the financial clout to do whatever it takes to serve our doctors.

If you would like this kind of aggressive defense in your corner, don't wait. Call The Medical Protective Company General Agent in your area today.



MEDICAL PROTECTIVE COMPANY

Serving Indiana Physicians Since 1908.

Robert B. Newell, J. Barton Lyon, Suite 240, 2260 Lake Avenue, P.O. Box 5174, Fort Wayne, IN 46895 (219) 422-4783
Vernon E. Hoover, II, Jere Frey, Michael W. Kinzer, 6100 North Keystone Avenue, Suite 237, P.O. Box 20576,
Indianapolis, IN 46220 (317) 255-6525

YOCON[®]

YOHIMBINE HCl

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubiaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it, however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon[®] is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.^{1,2} Also dizziness, headache, skin flushing reported when used orally.^{1,3}

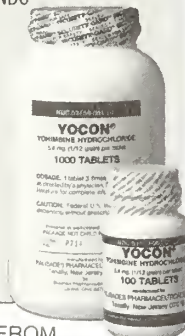
Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.^{1,3,4} 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.³

How Supplied: Oral tablets of Yocon[®] 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

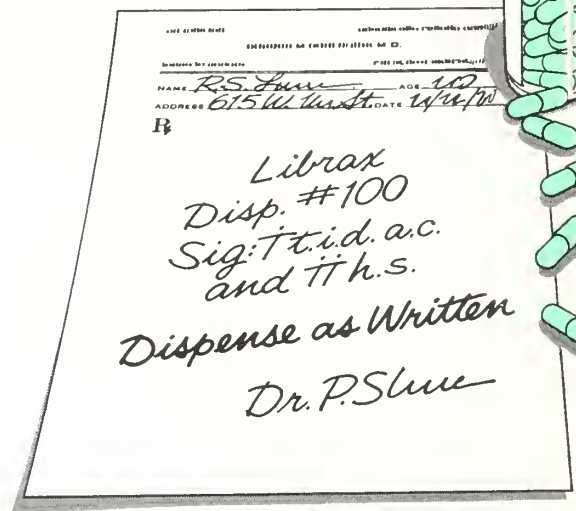
1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85



AVAILABLE EXCLUSIVELY FROM
**PALISADES
PHARMACEUTICALS, INC.**
219 County Road
Tenafly, New Jersey 07670
(201) 569-8502
1-800-237-9083

Specify Adjunctive **LIBRAX[®]**



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium bromide.

Please consult complete prescribing information, a summary of which follows:

- * **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective, as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur. Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazepines (see Drug Abuse and Dependence).

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug.
Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuance of chlordiazepoxide; more severe seen after excessive doses over extended periods, milder after taking continuously at therapeutic levels for several months. After extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence.

ROCHE Roche Products

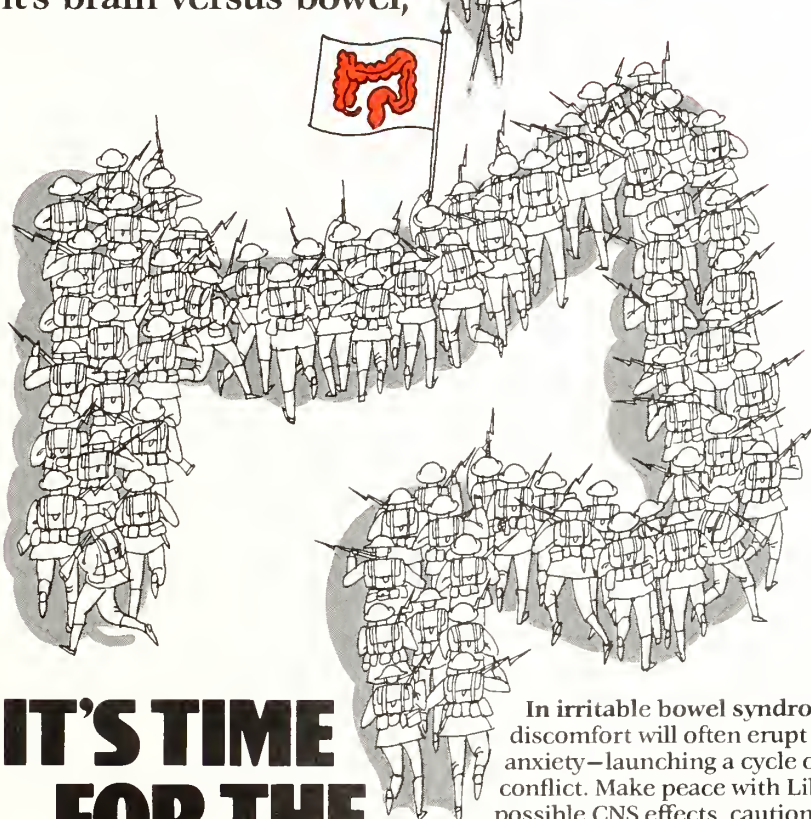
Roche Products Inc.
Manati, Puerto Rico 00701

IN

To insist on the brand, be sure to sign on the "Dispense as Written" line of your prescription.



In IBS,* when it's brain versus bowel,



**IT'S TIME
FOR THE
PEACEMAKER.**

In irritable bowel syndrome,* intestinal discomfort will often erupt in tandem with anxiety—launching a cycle of brain/bowel conflict. Make peace with Librax. Because of possible CNS effects, caution patients about activities requiring complete mental alertness.

*Librax has been evaluated as possibly effective as adjunctive therapy in the treatment of peptic ulcer and IBS.

Specify Adjunctive

LIBRAX®

Each capsule contains 5 mg chlordiazepoxide
HCl and 2.5 mg clidinium bromide.



■ cme calendar

Indiana University

The Indiana University School of Medicine will sponsor the following courses:

- Jan. 26-27 - Cochlear Implants in Children, University Place Executive Conference Center and Hotel, Indianapolis.
- Feb. 1-3 - Surgical Laser Use: Basics & Specifics, Indiana University Medical Center, Indianapolis.
- Feb. 2-3 - Phacoemulsification and IOL Update, University Place Executive Conference Center and Hotel, Indianapolis.
- Feb. 16-17 - 22nd Annual Meeting of the Frank Walsh Society, University Place Executive Conference Center and Hotel, Indianapolis.
- Feb. 23-24 - Winter Meeting, Indiana Chapter, American College of Surgeons, Columbia Club, Indianapolis.
- Mar. 8 - Infant Mortality Teleconference, University Place Executive Conference Center and Hotel in Indianapolis and at statewide Medical Television Network viewing sites.
- Mar. 16 - Current Diagnosis and Management of Epilepsy, University Place Executive Conference Center and Hotel, Indianapolis.
- Mar. 23 - Update in Occupational Lung Disease, University Place Executive Conference Center and Hotel,

Indianapolis.

- Mar. 24-25 - Annual Meeting, Indiana Society of Anesthesiologists and Anesthesia Update, University Place Executive Conference Center and Hotel, Indianapolis.

For information, call Melody Dian, assistant director, CME, (317) 274-8353.

Methodist Hospital

Methodist Hospital of Indiana will sponsor the following CME courses:

- Mar. 2-3 - Fifth Perinatology Symposium (Neonatal Resuscitation Hospital Instructor Course - Optional), Methodist Hospital, Petticrew Auditorium, Indianapolis.
- Mar. 3 - Bird's Nest Vena Cava Filter Workshop, Hilton-on-the-Circle, Indianapolis.
- Mar. 9 - Diabetes Update - 1990, Methodist Hospital, Petticrew Auditorium, Indianapolis.
- Mar. 9-10 - Advanced Cardiac Life Support, Methodist Hospital, Wile Hall, Indianapolis.
- Mar. 16 - Mild Head Injury, Methodist Hospital, Petticrew Auditorium, Indianapolis.
- Mar. 30-31 - Advanced Trauma Life Support, Methodist Hospital, Indianapolis.
- Apr. 28 - Cardiology Update: Current Concepts in Primary Care, Methodist Hospital, Petticrew Auditorium, Indianapolis.

For more information, contact Dixie Estridge, (317) 929-3733.

St. Mary's Medical Center

St. Mary's Medical Center in Evansville will sponsor the following courses:

- Feb. 8 - Heart-Lung Seminar: Cardio-Pulmonary Responses.
- Mar. 8 - The MacKenzie Seminar: Pelvic Infections - Internal and External.
- Apr. 5 - The Geriatric Seminar: The Slowing Necessities.
- Apr. 26 - Pediatric Cholesterol. All courses will begin at 1 p.m. at St. Mary's Medical Center. For information, contact W. Thomas Spain, M.D., St. Mary's Medical Center, 3700 Washington Ave., Evansville, IN 47750, (812) 479-4468.

University of Kentucky

The University of Kentucky College of Medicine will sponsor the following courses:

- Feb. 2-3 - Advances in Oncology - 1990, Hyatt Regency Hotel, Lexington, Ky.
- Feb. 25 - 21st Family Medicine Review - Session I, Hyatt Regency Hotel, Lexington, Ky. (course runs until March 2).
- Mar. 30-31 - Contemporary Pediatrics for the Practicing Physician, Hyatt Regency Hotel, Lexington, Ky.

For information, contact Susan Gilson, Conference Coordinator, University of Kentucky, College of Medicine Office Building, Lexington, KY 40536-0086, (606) 233-5161. □



SAVE \$600

A Royal Caribbean Cruise.



Ships of Norwegian Registry

Sovereign of the Seas

January 6–December 29, 1990

Day	Port	Arrive	Depart
Sat	Miami, Florida		5:30 PM
Sun	At Sea	Cruising to Labadee	
Mon	Labadee, Haiti	8:00 AM	4:00 PM
Tues	San Juan, Puerto Rico	12:00 Noon	2:00 AM (Wed)
Wed	St. Thomas, U.S.V.I.	8:00 AM	6:00 PM
Thur	At Sea	Cruising off coast of Hispaniola	
Fri	At Sea	Cruising to Florida	
Sat	Miami, Florida	8:30 AM	

Nordic Empress

May 14–December 31, 1990

Day	Port	Arrive	Depart
Mon	Miami, Florida		5:00 PM
Tues	Nassau, Bahamas	9:00 AM	2:30 AM Wed
Wed	Little Stirrup Cay, Bahamas	7:30 AM	6:00 PM
Thur	Freeport, Bahamas	10:30 AM	5:00 PM
Fri	Miami, Florida	9:00 AM	

For additional details, please see our forthcoming Bahamas cruise brochure.

Song of America

January 7–December 30, 1990

Day	Port	Arrive	Depart
Sun	Miami, Florida		5:00 PM
Mon	At Sea	Cruising to Mexico	
Tues	Playa Del Carmen*	7:30 AM	8:30 AM
Tues	Cozumel, Mexico	9:30 AM	5:30 PM
Wed	George Town, Gr. Cayman	Noon	6:00 PM
Thur	Ocho Rios, Jamaica	8:30 AM	4:00 PM
Fri	Labadee, Haiti	9:00 AM	5:00 PM
Sat	At Sea	Cruising to Florida	
Sun	Miami, Florida	8:30 AM	

*Optional tours to the historic ruins of Tulum will be available from Playa Del Carmen.

We offer discounts as high as \$600 per cabin on many 1990 sailings of the Sovereign of the Seas, Song of America and Nordic Empress. All on the cruise line voted "world's best" 5 years in a row by readers of *Travel-Holiday* magazine. Phone for these special prices; then make plans for a dream cruise of 3, 4, or 7 nights to the Caribbean.

Sovereign of the Seas, Song of America, Song of Norway, Nordic Prince, Sun Viking, Nordic Empress

INTERNATIONAL TOURS TRAVEL AGENCY

(Official travel agency for the Indiana State Medical Association)

5420 Southern Avenue Suite 100

Indianapolis, IN 46241

Telephones: Indianapolis – 244-3341; Toll-Free: 1-800-367-5410

EVERY AIRLINE TICKET AND CRUISE DISCOUNTED TO ISMA MEMBERS

Evaluation and management of goiter in childhood and adolescence



INDIANA MEDICINE offers its readers a Continuing Medical Education series of articles prepared by the faculty of the Indiana University School of Medicine. The program is coordinated and supported by a grant from the school's Division of Continuing Medical Education.

The I.U. School of Medicine designates this CME activity for one credit hour in Category I of the Physician's Recognition Award of the American Medical Association.

To obtain Category I credit for this month's article, complete the quiz following this article.

Ora Hirsch Pescovitz, M.D.
Indianapolis

A goiter is a neck mass that involves the thyroid gland and results in thyroid gland enlargement. In most pediatric patients, the thyroid gland is not palpable. Therefore, the presence of a goiter is an abnormal sign indicating that a medical evaluation is indicated.

Patients may be totally asymptomatic or euthyroid when a goiter is present. Alternatively, they may have increased or decreased degrees of thyroid activity (hyperthyroidism or hypothyroidism, respectively). Thyromegaly, or enlargement of the thyroid gland, may occur as a result of excessive stimulation, infiltration or inflammation of the thyroid gland.

Section I of this article deals with the clinical features that may be associated with thyromegaly. Section II deals with the various etiologies and mechanisms of goiter development in childhood. Section III reviews the evaluation and management of these disorders.

I. Clinical features

Pediatric patients with thyromegaly may have no symptoms whatsoever and may visit the doctor merely because they have

noticed a neck lump. The neck mass may be tender or painful. It may cause difficulty swallowing, and it may be so large that the child's breathing is compromised. Airway embarrassment is especially likely when goiter is present in the newborn period. There may be systemic symptoms such as fever, chills or malaise. Additional systemic symptoms may suggest the features of clinical hypothyroidism or hyperthyroidism.

Hypothyroidism

Congenital hypothyroidism – Babies who are hypothyroid may appear normal at birth. Babies with congenital hypothyroidism may have some or all of the following features, especially if left untreated: large anterior and posterior fontanelles, large tongue (macroglossia), umbilical hernia, distended abdomen, skin mottling, jaundice, hoarse cry, dry skin, hyporeflexia, lethargy, feeding problems and cold intolerance. If appropriate thyroid replacement therapy is not initiated, brain development will be abnormal, and the child will be mentally retarded.

Acquired hypothyroidism – Children who develop hypothyroidism after the newborn period frequently will have poor growth, delayed skeletal maturation, de-

layed dentition, constipation, lethargy, cold intolerance, hypoflexia, thick and pale skin and either delayed or precocious puberty. They may have a dull, placid facial expression and a deterioration in school performance.

Hyperthyroidism

The most common presentation of hyperthyroidism in childhood is a prolonged course of symptoms extending over weeks, months or years. The most common complaints include anxiety, emotional lability, difficulty sleeping, increased appetite and heat intolerance. On physical examination, tachycardia, increased pulse pressure, flushed and sweaty skin, thinning hair, tremor, tongue fasciculations and hyperreflexia may be observed. Chest x-ray may reveal cardiac enlargement, and electrocardiogram may reveal left axis deviation.

II. Etiology of goiter (Table)

A goiter that is diffuse, smooth and symmetrically enlarged usually indicates that an extrathyroidal factor has been stimulating the thyroid gland to enlarge. There are two principal situations in which the thyroid gland would be under hyper-stimulation. The first is when the gland is being excessively stimulated by the factor that normally stimulates it - thyroid stimulating hormone (TSH). The second is when abnormal thyroid stimulating factors, generally antibodies, circulate and directly stimulate the gland. Usually, these thyroid-stimulating antibodies are not found in normal individuals.

TSH - Under physiologic conditions, the hypothalamic-pituitary-thyroid axis maintains normal

circulating and tissue concentrations of thyroid hormones. It does this in the following way: The hypothalamus produces thyrotropin-releasing hormone (TRH), which stimulates the pituitary gland to produce thyroid-stimulating hormone (TSH). TSH then acts at the level of the thyroid gland to produce the major thyroid hormones, thyroxine (T_4) and triiodothyronine (T_3). The thyroid hormones themselves then control further thyroid hormone synthesis and release through feedback mechanisms that are active at the level of the pituitary gland and possibly at the level of

the hypothalamus as well.

The thyroid hormones generally circulate bound to binding proteins. However, it is the free or unbound hormone that is biologically active and that controls the hypothalamic-pituitary-thyroid axis. Much of the circulating T_4 actually is converted to T_3 in the peripheral tissues where T_3 is the more active of the thyroid hormones. It also is likely that T_3 is more important than T_4 in the feedback regulation of TSH in the pituitary gland. When the free thyroid hormone concentrations decrease, there is increased secretion of TSH by the pituitary gland

Table

Etiology of goiter in children

I. Stimulation

- A. Thyroid stimulating hormone (TSH)
 - 1. Iodine deficiency
 - 2. Iodine excess
 - 3. Ingestion of goitrogens
 - 4. Inborn errors of thyroid hormone metabolism
 - 5. Maternal antithyroid medications
 - 6. TSH secreting tumor
- B. Thyroid stimulating antibodies (TSABs)
 - 1. Graves' disease

II. Infiltration

- A. Non-neoplastic
 - 1. Cysts, fibrous thickening of thyroid
- B. Neoplastic
 - 1. Benign: thyroid adenomas, teratomas
 - 2. Malignant: papillary carcinoma, follicular carcinoma, medullary carcinoma

III. Inflammation

- A. Infectious
 - 1. Bacterial
 - 2. Viral
- B. Noninfectious
 - 1. Chronic lymphocytic thyroiditis

and, consequently, increased synthesis and release of thyroid hormones. Similarly, when the serum concentrations of the thyroid hormones increase, the secretion of TSH drops to undetectable levels, and there is decreased production and release of additional thyroid hormones.

The most common reason for the pituitary gland to secrete excess TSH is that the thyroid gland is unable to produce adequate amounts of thyroid hormones. In this situation, the feedback mechanisms for maintaining normal circulating levels of thyroid hormone will lead to an increase in TSH secretion to compensate for the low concentrations of circulating free thyroid hormone. If the thyroid gland is absent, as in congenital aplasia of the thyroid gland, this TSH stimulation will have no effect, and the child will have the signs and symptoms of hypothyroidism but obviously without a goiter. If the thyroid gland is present, TSH will bind to the follicular cell membrane receptor and will activate the adenylate cyclase system to produce cAMP. This, in turn, will activate the steps that lead to thyroid hormone synthesis and release.

Chronic TSH stimulation leads to hyperplasia of the thyroid gland and the development of a diffuse, symmetrical and nontender goiter. In five clinical situations, the thyroid gland is unable to make adequate quantities of thyroid hormones and TSH secretion is increased, leading to thyromegaly and euthyroidism or hypothyroidism (A through E). In one situation (F), the pituitary gland autonomously secretes excessive quantities of TSH, leading to goiter and hyperthyroidism. The six clinical situations referred

to are: A) iodine deficiency; B) iodine excess; C) ingestion of goitrogens; D) inborn errors of thyroid hormone metabolism; E) maternal antithyroid medications; and F) TSH secreting tumors.

In conditions A through E, the patient will generally be either euthyroid or hypothyroid by history and physical and laboratory evaluations. If the TSH stimulation and resultant thyromegaly cause adequate thyroid hormone production, the child will be euthyroid. However, if despite the excessive TSH stimulation, the thyroid gland is still unable to produce adequate amounts of thyroid hormone, the patient will have the signs and symptoms of hypothyroidism. It is unusual for TSH stimulation under any of these circumstances to result in hyperthyroidism. However, in the case of a pituitary tumor that secretes TSH, there is a disruption in the normal feedback that would inhibit further TSH production, and hyperthyroidism may develop.

Iodine deficiency – The thyroid gland requires iodine for the synthesis of thyroid hormones. The optimal daily iodine requirement is between 150 and 300 µg/day. Subjects who receive less than 50 µg/day will have iodine deficiency. Iodine deficiency is the most common cause of goiter worldwide. Most foods, with the notable exception of fish and seaweed, are relatively low in iodine content. In North America, the principal source of iodine is the supplementation of milk and salt (i.e., iodized salt) or in iodates that are used as preservatives.

Iodine excess – While iodine is clearly necessary for thyroid hormone synthesis, excessive iodine intake interferes with thyroid hormone metabolism. This toxic

effect of iodine is known as the Wolff-Chaikoff effect. It is actually a protective mechanism against the overproduction of thyroid hormone in situations of iodine excess. The chronic ingestion of more than 10 mg of iodine per day, however, may cause the development of a goiter, especially in genetically susceptible individuals. Iodine-containing x-ray contrast materials, Betadine and iodide-containing expectorants used in chronic pulmonary diseases are all substances to which a child might be exposed, leading to excessive iodine ingestion. Furthermore, excessive maternal ingestion of iodine during pregnancy may lead to development of goiter in the neonate. In addition, the fetal hypothyroidism that may occur can result in irreversible central nervous system damage.

Goitrogens – Certain foods such as members of the cabbage family actually contain goitrogenic substances that generally do not result in the development of goiters. However, when these foods are ingested in areas of low dietary intake of iodine, there is an associated increased incidence of goiters. Similarly, certain drugs such as lithium, sulfisoxazole and p-amino-salicylic acid may cause goiters in areas of low iodine intake.

Inborn errors of metabolism – Eight individual defects of thyroid hormone metabolism, secretion and utilization have been described. Most of these defects are inherited as autosomal recessive conditions. Generally, goiter is seen in association with these conditions during later childhood or adolescence. Newborns with these defects generally have congenital hypothyroidism in the absence of thyromegaly. Most of

these patients will develop hypothyroidism at some point during childhood.

Maternal antithyroid medication – Pregnant women who are suffering from Graves' disease may receive therapy with antithyroid medication. If a pregnant woman receives radioactive iodine therapy for Graves' disease after the eighth week of pregnancy, the fetal thyroid gland will trap this iodine, and ablation of the thyroid gland will occur. The baby will suffer from congenital hypothyroidism but will not be born with a goiter because the gland will be absent. If a mother receives antithyroid therapy with one of the thiouracil class of drugs that crosses the placenta, defective fetal thyroid hormone production may result. In this case, congenital hypothyroidism and goiter may be seen.

TSH secreting tumor – There are only a few case reports of TSH-secreting pituitary tumors in childhood. They may be associated with goiter and the presence of hyperthyroidism.

Thyroid stimulating antibodies (TSAb) – A number of antibodies that stimulate the thyroid gland both to enlarge and to produce excessive secretion of thyroid hormone have been discovered in patients with hyperthyroidism and goiter. Three main types of antibodies have been reported: long-acting thyroid stimulator (LATS), long-acting thyroid stimulator protector (LATS-P) and thyroid-stimulating immunoglobulins (TSI). Most of the patients with these antibodies in their peripheral circulation and who have a goiter and hyperthyroidism have Graves' disease.

Most cases of childhood Graves' disease become apparent during puberty, with a female predomi-

nance (female-to-male ratio of 3:1 to 6:1). Thyromegaly usually is present. The gland is symmetrically enlarged, smooth and nontender. Most patients have the signs and symptoms of hyperthyroidism. Ophthalmopathy of Graves' disease may be present with exophthalmos, stare, lid lag and increased lacrimation.

Infiltration

Infiltrative processes of the thyroid gland, both benign and malignant, are rare in children.

do not invade surrounding tissues. Occasionally, adenomas will be autonomous and may produce thyroid hormones. Their activity is not regulated by the normal mechanisms that regulate the thyroid gland, and they produce hyperthyroidism. In infancy, the most common benign tumor is a teratoma that may be present at birth and may be large enough to cause respiratory compromise in some neonates.

Neoplastic: Malignant neoplasms – Papillary adenocarcinomas ac-

If a mother receives antithyroid therapy with one of the thiouracil class of drugs that crosses the placenta, defective fetal thyroid hormone production may result.

These processes generally cause an asymmetric enlargement of the thyroid gland with one lobe or part of one lobe being more prominent than the other. Generally, the gland is nontender. The patients usually will have no symptoms although, occasionally, hypothyroid or hyperthyroid symptomatology may be present.

Non-neoplastic – These are rare, benign processes that may occur in the thyroid gland leading to a palpable nodule or asymmetry. The most common lesions include colloid or hemorrhagic thyroid cysts, fibrous thickening of the thyroid capsule, lymphadenopathy, branchial cleft cysts or thyroglossal duct cysts.

Neoplastic: Benign neoplasms – The most common benign tumor of the thyroid gland is a thyroid adenoma. Adenomas are rare in children and the etiology is not known. They are well-differentiated and well-encapsulated and

count for approximately 70% of the malignant neoplasms of the thyroid in childhood. The remainder of the well-differentiated carcinomas are either follicular or mixed papillary-follicular carcinomas. The specific etiology of these carcinomas is unclear. However, there is an association of head and neck radiation exposure and the incidence of carcinoma. Both external radiation and radioiodine (¹³¹I) have induced thyroid adenomas and carcinomas in experimental rats.

Medullary carcinoma of the thyroid also is rare and can occur either spontaneously or be inherited as part of an autosomal dominant syndrome. This syndrome, known as the multiple endocrine adenomatosis syndrome, Type 2b, may be accompanied by mucosal neuromas (white nodules on the tongue, lips and buccal mucosa), pheochromocytomas, parathyroid hyperplasia and Cushing's syn-

drome. This particular type of thyroid tumor is associated with hyperplasia of the C cells of the thyroid that are responsible for calcitonin production.

Inflammation

Inflammatory lesions of the thyroid gland may cause either symmetrical or asymmetrical thyroid gland enlargement. The gland may be smooth, but more often is irregular and nodular to palpation. In cases of bacterial or viral infection, the gland is frequently markedly tender, while in noninfectious inflammatory thyromegaly, tenderness of the gland is either minimal or not present.

Infectious – Acute suppurative thyroiditis is characterized by fever, chills, sore throat and an acutely painful and tender thyroid gland. Usually, the patient is euthyroid. The most likely organisms to cause bacterial thyroiditis in children are *Staphylococcus aureus*, *Streptococcus hemolyticus* and pneumococcus.

Subacute thyroiditis is rare in childhood and is characterized by a chronic sore throat, fever and firm, tender thyromegaly. Most patients are euthyroid late in the course of the disease and mildly hyperthyroid during the early stages. Most cases of subacute thyroiditis are secondary to viral infections.

Noninfectious – Chronic thyroiditis is the most common type of thyroid disorder in childhood. This type of thyroiditis also has been called chronic lymphocytic thyroiditis, Hashimoto's thyroiditis or autoimmune thyroiditis.

This condition most commonly occurs during puberty and is far more common in women than in men. Occasionally, there will be a history of sore throat or difficulty swallowing. Usually, the patients

are asymptomatic and euthyroid. The thyroid gland may either be symmetrically or asymmetrically enlarged. It generally is bumpy, nodular and irregular. On microscopic evaluation, there is lymphocytic infiltration of the gland. Antibodies and immune complexes attach to the basement membrane of the thyroid follicular cells. It is possible to measure antimicrosomal and antithyroglobulin antibodies in the circulation, and their presence is usually diagnostic for chronic lymphocytic thyroiditis.

***Subacute
thyroiditis is rare
in childhood and is
characterized by a
chronic sore throat,
fever and firm,
tender thyromegaly.***

III. Evaluation and management

When a child has a goiter, the physician should perform a complete history and a physical examination, taking particular note of the child's age, sex and history of systemic symptoms. The duration of the goiter's presence and eliciting symptoms suggestive of hyperthyroidism or hypothyroidism are important. The dietary history should include whether the patient lives in a goiter belt or consumes large quantities of goitrogenic foods.

Physicians should ask about medications that might include iodides or that may be toxic to the thyroid gland, including prenatal medications and accidental ingestions of thyroid-containing medi-

cations. A family history is pertinent, especially in reference to the possibility of autoimmune disease or inborn errors of thyroid hormone metabolism.

The physical examination should be complete and focus on the signs associated with hyper- and hypothyroidism and evaluation of the goiter. Examination of the goiter should reveal its size, degree of symmetry or asymmetry, texture, degree of nodularity and any tenderness. Evaluation of surrounding structures such as lymph nodes also is critical. The initial laboratory evaluation should include thyroid function studies to evaluate circulating thyroid hormone and TSH levels.

The most likely causes of goiter in newborns include: iodine deficiency or excess, maternal antithyroid medications and inborn errors of metabolism. If hypothyroidism is present by laboratory evaluation, a timely and complete medical evaluation is indicated.

The patient should then be treated immediately with thyroid hormone to avoid the risks of brain damage in the untreated patient. Therapy might be withdrawn at two to five years of age to determine if replacement hormonal treatment is still indicated. If so, a further evaluation to exclude inborn errors of metabolism is warranted.

In the older child, the single most common cause of a goiter is chronic lymphocytic thyroiditis. The diagnosis of chronic lymphocytic thyroiditis is most often confirmed by the finding of high titers of circulating antithyroglobulin and antimicrosomal antibodies. The most appropriate form of management for the patient with asymptomatic chronic lymphocytic thyroiditis is continued observation. Some of these patients

will develop "burn-out" of thyroid gland function and hypothyroidism. When this occurs, these patients should be treated with replacement thyroid hormone.

If the gland is symmetrically enlarged, the patient is mildly hyperthyroid and ophthalmopathy is present, the differential diagnosis also includes Graves' disease. A finding of LATS, LATS-P or TSI would suggest Graves' disease. A radioactive iodine uptake test may be helpful because patients with Graves' disease will have diffuse and elevated uptakes.

The therapy for Graves' disease is directed toward decreasing the symptoms of hyperthyroidism. Three possible treatment courses exist: antithyroid medications (methimazole or propylthiouracil), surgery to decrease the size of the thyroid mass or ablation of the thyroid gland with radioactive iodine therapy.

If the gland is tender and the patient has a fever and leukocytosis, acute and subacute thyroiditis must be entertained. The diagno-

sis may be confirmed by demonstration of leukocytosis or by a needle aspiration and culture of the aspirate. Antibiotics are the therapy of choice for bacterial thyroiditis, while observation and supportive care are appropriate for viral thyroiditis.

If the gland is asymmetric and nontender and a single nodule is palpated within the gland, one must consider infiltrative processes such as cysts, adenomas and carcinomas. A thyroid scan and thyroid ultrasound will be useful in making the diagnosis of thyroid cysts and neoplasms. Usually, the thyroid scan reveals a "cold" nodule in thyroid carcinomas and a "hot" nodule in thyroid adenomas.

Whether the nodule is hot or cold depends on whether there is radioactive iodine taken up by the gland. When the nodule is hot, the nodule is using the radioactive iodine and generally producing thyroid hormone. The primary therapy for any thyroid tumor, especially a cold nodule, is surgery. Some authorities recom-

mend surgery for hot nodules as well because of the small but serious risk of carcinoma. Others recommend careful observation of patients with hot nodules.

Thus, the presence of goiter or thyromegaly in a child requires a thoughtful and thorough history and physical and laboratory evaluations. The appropriate evaluation and subsequent management course depends on complete review of the differential diagnosis with an emphasis on the most likely diagnoses for an individual child. If the diagnosis is correctly made and the patient appropriately managed, the prognosis of goiter in childhood generally is good. □

Correspondence and reprints: Ora Hirsch Pescovitz, M.D., Associate Professor of Pediatrics, Physiology/Biophysics, Section of Pediatric Endocrinology and Diabetes, James Whitcomb Riley Hospital for Children A593, Indiana University School of Medicine, 702 Barnhill Drive, Indianapolis, IN 46223.

■ drug names

Benjamin Teplitsky, R. Ph.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions.

Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors. □

Look-alike and sound-alike drug names

	DORYX	DURRAX
Category:	Tetracycline	Anxiety agent
Brand name:	Doryx, Parke-Davis	Durrax, Dermik
Generic name:	Doxycycline	Hydroxyzine
Dosage forms:	Capsules	Tablets
	PENTRAX	PERMAX
Category:	Shampoo	Parkinson
Brand name:	Pentrax, GenDerm	Permax, Lilly
Generic name:	(Combination drug)	Pergolide mesylate
Dosage forms:	Shampoo	Tablets

cme quiz

To obtain one hour of Category I CME credit, answer the following questions by circling the correct answer on the answer sheet below. Complete the application form and mail it to: Indiana University School of Medicine, CME Division, BR 156, 1226 W. Michigan St., Indianapolis, IN 46223.

Evaluation and management of goiter in childhood and adolescence

1. The adolescent patient with a chief complaint of goiter will most commonly have clinical features of:
a. Hypothyroidism
b. Hyperthyroidism
c. Euthyroidism
2. All of the following are features of congenital hypothyroidism except:
a. Jaundice
b. Obesity
c. Macroglossia
d. Lethargy
3. All of the following can be features of acquired hypothyroidism except:
a. Precocious puberty
b. Delayed skeletal maturation
c. Delayed puberty
d. Accelerated dental development
4. It is important to determine the etiology of hypothyroidism in a newborn before initiating replacement therapy, even if a complete evaluation will take four to six weeks.
a. True
b. False
5. Hot nodules in pediatric patients produce thyroid hormone and therefore are always benign.
a. True
b. False
6. Which one of the following hormones is most important in producing the metabolic effects of thyroid?
a. TSH
b. TRH
c. T_3
d. T_4
7. The most likely reason a baby of a mother with Graves' disease can develop a goiter is:
a. Maternal antithyroid medication crosses the placenta and leads to decreased T_3 and T_4 production
b. Maternal antithyroid medication crosses the placenta and leads to increased T_3 and T_4 production
c. Maternal excess thyroid hormone crosses the placenta and stimulates the baby's thyroid gland to enlarge
d. Maternal TSH crosses the placenta and stimulates the fetal thyroid gland
8. Which of the following statements is correct? 1) Iodine deficiency can result in goiter formation; or 2) Iodine excess can result in goiter formation
a. 1 only
b. 2 only
c. Both 1 and 2
d. Neither 1 nor 2
9. In patients with a family history of multiple endocrine disease, including parathyroid hyperplasia, pheochromocytoma and Cushing's syndrome, the most common thyroid neoplasm is:
a. Thyroid adenoma
b. Papillary carcinoma
c. Follicular carcinoma
d. Medullary carcinoma
10. In pediatric patients with a malignant thyroid neoplasm and no associated endocrine disease, the most common thyroid neoplasm is:
a. Thyroid adenoma
b. Papillary carcinoma
c. Follicular carcinoma
d. Medullary carcinoma

Answer sheet for CME quiz

I wish to apply for one hour of Category I AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on this answer sheet. I understand my answer sheet will be graded confidentially, at no cost to me, and notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score, but the answers will be published in the next issue of INDIANA MEDICINE.

Name: (please print or type) _____

Address: _____

Identification number: (found above your name on mailing label) Signature: _____

Answers (circle one)

1. a b c
2. a b c d
3. a b c d
4. a b
5. a b
6. a b c d
7. a b c d
8. a b c d
9. a b c d
10. a b c d

To be eligible for this month's quiz, send your completed, signed application before Feb. 10, 1990, to the address appearing at the top of this page.

MORE THAN **250,000** PATIENTS HAVE ENJOYED HEALTH BENEFITS RESULTING FROM MEDIFAST.

MORE THAN **10,000** PHYSICIANS PRESCRIBE MEDIFAST WITH CONFIDENCE.

MORE THAN **10** YEARS OF DEDICATED SERVICE TO THE MEDICAL PROFESSION.

No Other Physician-Supervised Weight Control Program Delivers This Winning Combination
...and that makes Medifast #1

Physician-Supervised Protein-Sparing Modified Fast For the Safe • Rapid • Medical Treatment of Obesity

Doctor, one of every four of your patients has overweight problems that need medical help...the help of Medifast®.

A comprehensive program for rapid weight loss *and lifelong weight control*, Medifast has proven itself. For more than 10 years! To more than 10,000 physicians! To more than 250,000 patients!



TRAINING MANUALS

Medifast will work for you, too. Patients lose weight with a program of physician-supervised modified fasting and behavior modification. And they keep it off with our exclusive *LifeStyles* Program.

The Medifast Program includes:

- ★ *Training* – Comprehensive training manuals written by physicians, for physicians. Address all clinical and administrative aspects.
- ★ *Medifast Supplements* – Extremely high quality. Medically formulated.

Nutritionally complete.

★ *LifeStyles* – The Medifast Program of Patient Support™. Teaches patients the way to long-term weight control and healthful living.

★ *Clinical Consultation* – Medical and technical support specialists available daily at our toll-free number.

★ *Practice Promotion Portfolio* – Complete with marketing ideas, office displays, posters, waiting room brochures, and advertising.

★ *National Consumer Ad Campaign* – Builds public awareness, creates referrals.



LifeStyles: PATIENT SUPPORT

You know, Doctor, that more traditional methods of weight reduction are simply ineffective. And, severe overweight threatens your patient's health. Primary Care Physicians of every specialty recognize Medifast to be an important addition to their

prescribed therapy and an effective way to increase their patient base.



PROMOTION PORTFOLIO

For complete information call toll-free

1-800-638-7867

For more information about the Medifast Program, please send this coupon to:

The Nutrition Institute of Maryland
William J. Vitale, M.D.
Director, Clinical Services
1840 York Road, Suite H
Timonium, MD 21093

NAME _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____
PHONE _____ SUG-12

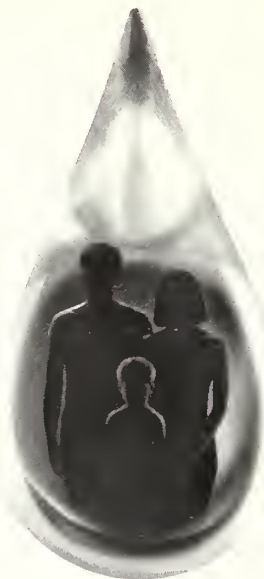


The Physicians' Answer to Weight Control.

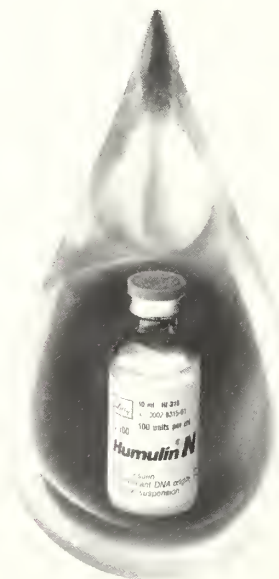
For treatment of diabetes:


REPLACE Human Insulin

Introducing
Humulin® 70/30
70% human insulin isophane suspension
30% human insulin injection
(recombinant DNA origin)

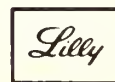


With Human Insulin



Humulin® 
human insulin
(recombinant DNA origin)

*Any change of insulin should
be made cautiously and only
under medical supervision.*



Leadership
In Diabetes Care

MAJOR OPPORTUNITIES FOR HEALTH PROFESSIONALS.



The Army Medical Department represents the largest comprehensive system of health care in the United States, offering unique advantages to student, resident and practitioner in the following professions:

**PHYSICIANS (ALL SPECIALTIES) — PHARMACISTS
OPTOMETRISTS — DENTISTS — VETERINARIANS**

As an Army Officer, you will receive substantial compensation, an annual paid vacation, and will participate in an excellent noncontributory retirement plan.

For more information, fill in the form below and mail to the address provided, or call:

(708) 541-3599/3429 (Collect calls accepted.)

ARMY MEDICINE. BE ALL YOU CAN BE.

PLEASE SEND MORE INFORMATION ON OPPORTUNITIES IN THE ARMY MEDICAL DEPARTMENT.

Mail to: **Cpt. Arthur D. Pickering, Jr., MSC
AMEDD Personnel Counselor
1020 Milwaukee Ave., Suite 320
Deerfield, Illinois 60015-3555**

NAME	AGE	
ADDRESS		
CITY	STATE	ZIP
PHONE		
SCHOOL ATTENDED/ATTENDING		
GRADUATION DATE	DEGREE	
SPECIALTY/AREA OF INTEREST		

Sentinel symptoms and signs of intracranial aneurysms

Scott A. Shapiro, M.D.
Indianapolis

Subarachnoid hemorrhage (SAH) secondary to aneurysmal rupture is a devastating illness. Despite significant improvements in the medical and surgical management of aneurysmal subarachnoid hemorrhage, less than half the patients surviving to hospital admission have favorable outcomes.⁸ Direct effects of the hemorrhage, rehemorrhage and vasospasm all play a role in damaging cerebral function.

Early surgery markedly reduces the risk of rehemorrhage in patients; however, studies have failed to show a benefit in overall outcome for early surgery versus late surgery.³ Most centers perform early surgery on the patients in excellent neurologic condition and wait for 10 days on those significantly ill.

Amicar (epsilon aminocaproic acid), an antifibrinolytic, reduces the risk of rehemorrhage in aneurysmal subarachnoid hemorrhage for the first two weeks post hemorrhage by preventing clot lysis.^{9,14} Amicar may or may not increase the incidence and severity of vasospasm.^{9,14} We continue to use Amicar in those patients too ill to operate on early.

Treatment for vasospasm consists of intravascular volume expansion together with Swan-Ganz

monitoring, antidiuretics, hemodilution and inotropic support.¹⁰ This can reverse partial ischemic deficits in focal vasospastic conditions but has little effect on most severe, diffuse, vasospastic conditions, and the treatment has significant risk factors. Ongoing investigations using calcium channel blockers to reduce vasospasm may reduce morbidity some, but dramatic improvement in overall outcome has not been achieved.¹

Subtle psychosocial and intellectual impairments are present and detectable only by sophisticated neuropsychiatric testing even in the aneurysmal subarachnoid hemorrhage patients who have good neurological grades, do well with surgery and appear normal on follow-up. These impairments often preclude a return to a demanding prehemorrhage occupa-

Abstract

Despite advances in the management and surgery of aneurysmal subarachnoid hemorrhage, fewer than half of the patients surviving to hospital admissions have favorable outcomes. This is due to the primary and secondary effects of the hemorrhage. Studies have shown that as many as 40% of ruptured aneurysms had preceding warning symptoms and signs. These warnings include severe headache and cranial nerve palsies, especially the third cranial nerve. Seizures, focal deficits or transient ischemic attacks are rarely warnings. Evaluation should include, in this order, computed tomography scan, lumbar puncture and angiography as indicated. Surgery on symptomatic non-ruptured aneurysms is associated with a greater than 95% chance of a very good outcome and less than 1% mortality rate.

tion.^{13,16}

Thus, if one can identify aneurysms before they rupture and safely obliterate them, preventing subarachnoid hemorrhage, the ultimate outcome should be improved. Studies have shown that as many as 40% of ruptured aneurysms had preceding warning symptoms and signs.^{11,12,15,18} These signs can be attributed to aneurysmal expansion, expansion with cranial nerve or brain compression, a minor leaking hemorrhage from the aneurysm, emboli from an intra-aneurysmal clot or, in rare cases, from occlusion of a major vessel by aneurysmal expansion.^{2,12}

Both aneurysmal expansion and minor leaks produce a severe headache of sudden onset that is most often unremitting, lasting either until a subsequent major

aneurysmal rupture or up to two weeks.¹² Internal carotid artery (ICA) aneurysms, including posterior communicating artery (PCoA) aneurysms, tend to cause ipsilateral periorbital, hemicranial or hemifacial headaches.¹² Anterior communicating aneurysms (ACoA) tend to cause bifrontal headaches.¹² Associated neck pain, back pain, nausea and vomiting and confusion occasionally may be associated with the above.

Aneurysmal expansion with or without leakage, if large enough or strategically located, can cause an isolated cranial nerve palsy. Classically, the PCoA aneurysm is associated with a third cranial nerve palsy. It is usually painful, and the pupil usually is involved (dilated), whereas diabetic third cranial nerve palsies are painful but tend to spare the pupil. However, cases have been reported of pupillary sparing with third nerve palsies secondary to aneurysms.^{11,12,15,18}

I have been exposed indirectly to cases of acute painful third cranial nerve palsy that were attributed to diabetes and Tolosa-Hunt syndrome. The aneurysms subsequently ruptured while the patients were under inpatient observation at outside institutions, and the patients did not survive the ictus.

Therefore, pupillary sparing is not a reason for complacency, and all patients with an acute third cranial nerve paresis should be evaluated emergently. When aneurysm expansion results in the acute development of a cranial nerve palsy, the risk of a major hemorrhage during the next week or two is extremely high.^{2,8}

Paraclinoid aneurysms can cause optic nerve deficits from compression with or without

pain.^{11,12} Larger middle cerebral aneurysms can cause hemiparesis secondary to mass effect. In rare instances, posterior fossa aneurysms can cause trigeminal neuralgia, hemifacial spasm or lower cranial nerve palsies.^{11,12} Emboli and thrombosis obviously would cause transient ischemic attacks (TIAs) or stroke syndromes with varying focal deficits.

Computed tomography (CT) scanning should be the first diagnostic procedure. It may pick up an aneurysm larger than 7 mm or the minor leak subarachnoid hem-

orrhage, but the CT scan is unreliable in many cases.⁴ Lumbar puncture, which should be done next when mass lesions are ruled out, will invariably reveal xanthochromia in those aneurysms that have leaked.¹² Magnetic resonance imaging (MRI) may become more sensitive than CT but remains imperfect to date.

Figure 1 depicts our experience with a patient who had a periorbital headache and a third cranial nerve palsy. The CT and MRI scan were nondiagnostic, but the angiogram revealed a PCoA aneu-

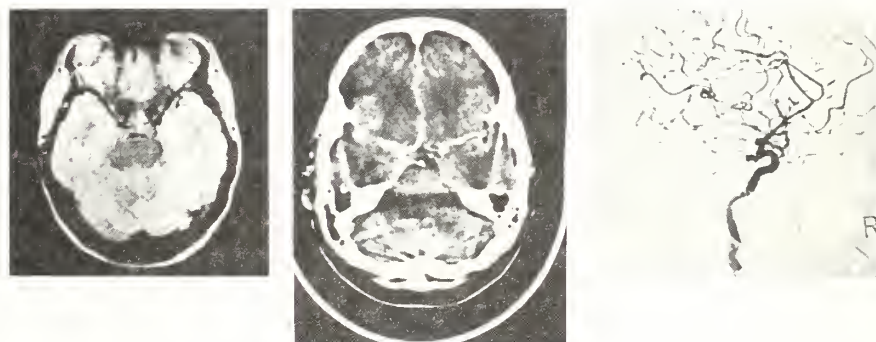


Figure 1: Left - MRI scan in the patient with a third cranial nerve palsy and PCoA aneurysm. Middle - CT scan with contrast in the same patient. Right - Right lateral ICA angiogram revealing PCoA aneurysm.

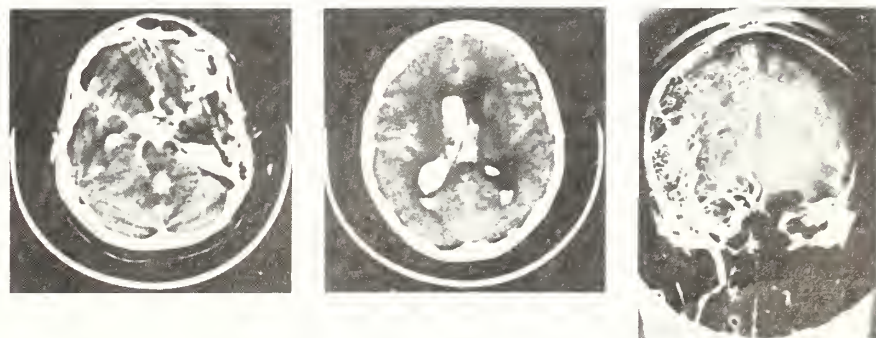


Figure 2: Left and middle - CT scans without contrast revealing massive subarachnoid hemorrhage and intraventricular hemorrhage. Right - Right A-P ICA angiogram revealing small ICA aneurysm projecting medially.

rysm. This aneurysm was successfully clipped before rupture, and the patient's third cranial nerve palsy improved. Angiography remains the definitive diagnostic tool. When the index of suspicion is very high, one can circumvent the lumbar puncture (LP) and go straight to angiography following a CT scan.

Many of these sentinel aneurysmal signs and symptoms are misdiagnosed as migraine, vasculitis, hysteria, gastroenteritis, meningitis and diabetes.¹² The interval between onset of sentinel findings and subsequent major rupture may be less than 24 hours to as long as months, with the majority occurring between two to 14 days.^{11,12} If the minor leak is unrecognized and a subsequent major rupture occurs, the SAH is more severe, the clinical condition is worse and the risk of dying is higher than for patients with ruptured aneurysms that were previously asymptomatic.¹²

Figure 2 is an example of our experience with a 42-year-old patient who reported a severe headache to her local physician two days before her major aneurysmal SAH. She subsequently appeared in a grave neurologic condition and was brain dead at 72 hours post hemorrhage despite very aggressive treatment. Surgical obliteration of her aneurysm would have been a very simple technical exercise. Surgical obliteration of asymptomatic aneurysms and ruptured aneurysms in very good neurological condition carries close to a 1% mortality rate.^{3,17} Significant improvement

in the treatment of cerebral aneurysms can, therefore, be achieved by diagnosing and treating patients before they sustain a major rupture.

Many neurosurgeons believe the most important impact in preventing aneurysmal hemorrhage will be made by increasing the awareness in the medical community of the warning signs of impending aneurysmal rupture. Digital vascular imaging and selective cerebral angiography is extremely safe. If a certain percentage of negative appendectomies is acceptable, then the same concept should apply to angiography if the index of suspicion for an intracranial aneurysm is high. □

Correspondence and reprints: Scott A. Shapiro, M.D., Neurosurgery Department, Wishard Memorial Hospital, 1001 W. 10th St., Indianapolis, IN 46202.

References

1. Allen G, Hyo S, Preziosi T, et al: Cerebral arterial spasm-controlled trial of nimodipine in patients with subarachnoid hemorrhage. *N Engl J Med*, 308:619-624, 1983.
2. Ball M: Pathogenesis of the "sentinel headache" preceding berry aneurysm rupture. *Can Med Assoc J*, 112:78-79, 1975.
3. Chyatte D, Fode N, Sundt T: Early versus late intracranial aneurysm surgery in subarachnoid hemorrhage. *J Neurosurg*, 69:326-331, 1988.
4. Davis K, Kistler J, Heros R, Davis J: Neuroradiologic approach to the patient with a diagnosis of subarachnoid hemorrhage. *Radiol Clin North Am*, 20:87-94, 1982.
5. Drake C: Cerebral aneurysm surgery: An update. In Scheinberg P ed: *Cerebrovascular Diseases*. Tenth Princeton Conference. New York, NY: Raven Press; 1976:289-310.

6. Duffy G: The "warning leak" in spontaneous subarachnoid hemorrhage. *Med J Aust*, 1:514-516, 1983.

7. Gillingham F: The management of ruptured intracranial aneurysms. *Scott Med J*, 12:377-383, 1967.

8. Heros R, Kistler J: Intracranial arterial aneurysms - An update. *Stroke*, 14:628-631, 1983.

9. Kassell N, Torner J, Adams H: Antifibrinolytic therapy in the acute period following aneurysmal subarachnoid hemorrhage. Preliminary observations from the cooperative aneurysm study. *J Neurosurg*, 61:225-230, 1984.

10. Kassell N, Peerless S, Durward Q, Beck D, Drake C, Adams H: Treatment of ischemic deficits from vasospasm with intravascular volume expansion and induced arterial hypertension. *Neurosurgery*, 11:337-341, 1982.

11. King R, Saba M: Forewarnings of major subarachnoid hemorrhage due to congenital berry aneurysm. *NY State J Med*, 74:638-639, 1974.

12. Leblanc R: The minor leak preceding subarachnoid hemorrhage. *J Neurosurg*, 66:35-39, 1987.

13. Ljunggren B, Bradndt L, Sundbarg G, Saveland H, Cronqvist S, Stridebeck H: Early management of aneurysmal subarachnoid hemorrhage. *Neurosurgery*, 11:412-418, 1982.

14. Muizelaar J: Antifibrinolytics in subarachnoid hemorrhage: A randomized double-blind placebo-controlled study with 479 patients. *Stroke*, 15:188-189, 1984.

15. Okawara S: Warning signs prior to rupture of an intracranial aneurysm. *J Neurosurg*, 38:575-580, 1973.

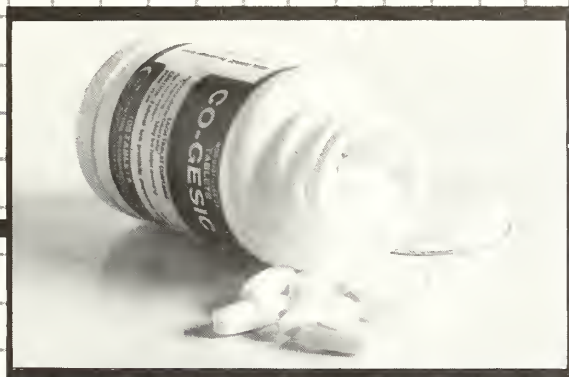
16. Ropper A, Zervas N: Outcome one year after SAH from cerebral aneurysm. Management morbidity, mortality and functional status in 112 consecutive good-risk patients. *J Neurosurg*, 60:909-915, 1984.

17. Samson D, Hodosh R, Clark K: Surgical management of unruptured asymptomatic aneurysms. *J Neurosurg*, 46:731-734, 1977.

18. Waga S, Ohtsubo K, Handa H: Warning signs in intracranial aneurysms. *Surg Neurol*, 3:15-20, 1975.

Co-Gesic[®]

HYDROCODONE BITARTRATE* and ACETAMINOPHEN TABLETS
5 mg and 500 mg *Warning — May be habit forming



Proven
Dependability



CENTRAL PHARMACEUTICALS, INC.

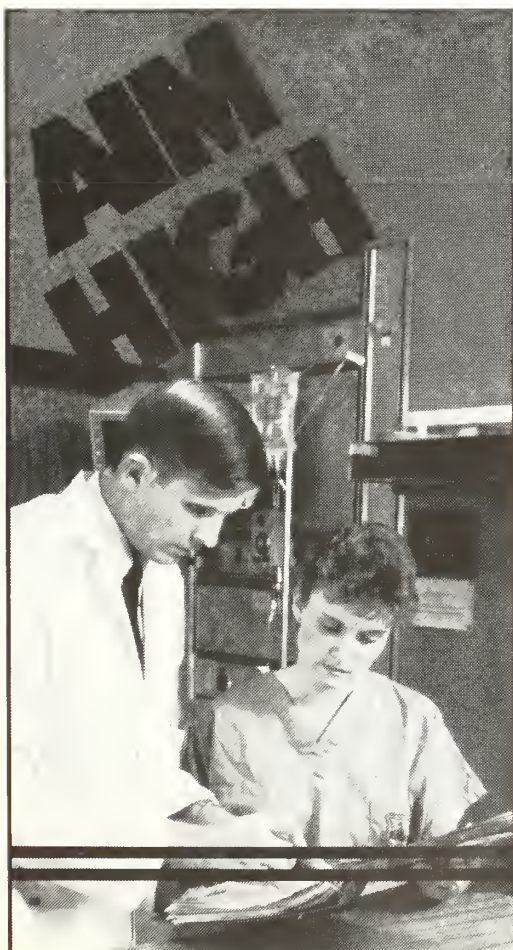
SEYMOUR, INDIANA 47274 USA

Quality Pharmaceuticals Since 1904

FLIGHT SURGEONS WANTED.

Discover the thrill of flying, the end of paperwork and the enjoyment of a general practice as an Air Force flight surgeon. Take flight with today's Air Force and discover quality benefits, 30 days of vacation with pay each year and the support of a dedicated staff of professionals. Enjoy a true general practice on the ground, with the kind of stimulating challenge that will get your medical skills airborne. Talk to an Air Force medical program manager about becoming an Air Force flight surgeon. Call

USAF HEALTH PROFESSIONS
317-848-5830
COLLECT



Human pulmonary dirofilariasis

Ted Bloch, M.D.
Thomas Glynn, M.D.
Michael Hinshaw, M.D.

Humans are susceptible to infection with larval stages of certain helminths that are normally parasites of animals. One such parasite is the heartworm, *Dirofilaria immitis*. In a dog, the adult worm lives in the right ventricle and the major pulmonary arteries, causing vascular sclerosis and heart failure. In man, accidental infection is acquired by the bite of the intermedial host mosquito. A case of human pulmonary dirofilariasis is described clinically and histologically.

Case report

A 64-year-old male smoker, with a past medical history of atherosclerotic coronary artery disease treated with aorto-coronary bypass in 1977 and balloon angioplasty in 1980, developed a sharp pain in the left side of his chest under his arm. A routine chest radiograph revealed a pleural based pulmonary nodule that was not present on a comparison radiography performed 18 months earlier (Figure 1).

Computerized tomography (CT) of the chest subsequently was performed, localizing this nodule anteromedially within the left upper lobe. Narrow window CT failed to disclose calcification. Admission laboratory tests were

within normal limits. A left thoracotomy with open excisional biopsy was undertaken, and diagnosis was made on a frozen section. His postoperative course was unremarkable.

Materials and methods

The excised pulmonary nodule was received fresh. After frozen section, the tissue was fixed in formalin for light microscopy, embedded in paraffin and stained with hematoxylin-eosin by standard laboratory methods.

Results

Gross examination – The lung biopsy consisted of a 4 cm x 3 cm x 2 cm nodular, gray, anthracotic parenchymal fragment, which upon division revealed a 3 cm x 3 cm spherical, subpleural, reddish-purple, central, firm region surrounded by a 2 mm yellow rim (Figure 2). The surrounding pulmonary parenchyma showed no gross pathology.

Microscopic examination – Frozen section of the central nodule revealed pulmonary coagulative necrosis with a rim of fibrosis and granulomatous inflammation con-

Abstract

A case of human pulmonary dirofilariasis is reported. This human infestation must be considered in the differential diagnosis of a pulmonary "coin" lesion, which lies adjacent to a pleural surface, especially where tissue sections reveal a pulmonary infarct.

taining mononuclear cells. The central portion of the infarct contained a thrombosed branch of the pulmonary artery with a tangentially sectioned embolized nematode with a smooth, thick trilaminar cuticle (Figure 3), broad lateral chords and two lateral cuticular ridges. The surrounding lung tissue revealed focal organizing pneumonia, fibrosis and chronic inflammation. A neoplasm was not found.

Discussion

This case represents pulmonary infarction secondary to a male *Dirofilaria immitis*. Humans are susceptible to infection with larval stages of certain helminths that normally are parasites of animals. In most cases, man is not a suitable host to allow these parasites to develop full maturity, but they may live for a long time and cause serious damage.

Pulmonary dirofilariasis dates back to 1887 when de Magalhães reported filaria in the left ventricle of a male child from Rio de Janeiro.¹ Faust reported the first confirmed case of *Dirofilaria immitis* in the inferior vena cava of a

73-year-old man in 1940.² Dashiell is credited with the original description of the embolized nematode within a branch of the pulmonary artery causing infarction.³

Dirofilaria immitis, the dog heartworm, is endemic throughout the eastern and southern coastal states, as well as pockets in California and Hawaii.⁴ Recently, the heartworm has extended along the Mississippi River Valley with scattered reports appearing in Canada.⁵ Dogs, cats, foxes, wolves, muskrats and coyotes are susceptible. Horses and sea lions rarely are susceptible.

In the dog, the adult worm lives in the right ventricle and major branches of the pulmonary artery causing vascular sclerosis and cor pulmonale. The adult males measure 12 cm to 15 cm in length, and

the female measures up to 30 cm. Both have a diameter of 3 mm to 4 mm. The adult female worm produces several thousand microfilaria a day measuring 315 μ m in length, which circulate with the blood (Figure 4). A biting insect ingests microfilaria while taking its blood meal. The intermediate host is usually a mosquito (*Culex*, *Aedes*, *Myzorrhynchus* and *Anopheles*) or more rarely, some species of fleas or ticks.

The microfilaria migrate to the insect's thoracic muscles where they molt twice in 10 to 17 days to produce the infective filariform stage. The larvae then migrate to the mouth area where they gain access to a new host. The filariform larvae in the new dog host undergo further development within the subcutaneous tissue. When they reach 5 cm (usually 80 to 120 days), they enter veins and migrate to the right side of the heart. Within three months, they become sexually mature and begin to produce microfilaria to renew the cycle.

In man, accidental infection is acquired by the bite of an intermediate host mosquito. The filariform larvae also eventually migrate to the heart; however, the host environment is inadequate for the organism to reach sexual maturity so microfilaria are not produced. When the worm dies, it is embolized to a smaller branch of the pulmonary artery, resulting in an infarct.

Pulmonary infarcts, due to most emboli, are pro-



Figure 1: Lateral chest radiograph. The pleural-base nodule can be seen high in the substernal region adjacent to metal clips. This lesion was not visible on the posterior-anterior radiograph.



Figure 2: Pulmonary excisional biopsy, which contains a subpleural oval lesion with a band of yellow peripheral demarcation.

duced by occlusion of a pulmonary arteriole supplying a secondary pulmonary lobule, resulting in a wedge-shaped area of coagulative necrosis. The infarct caused by *Dirofilaria immitis* is spherical and usually subpleural. This is postulated by Przyjemski to be secondary to diffusion of parasite antigens from the degenerating nematode, which incite an inflammatory response similar to a late stage Arthus reaction.⁶ The surrounding lung parenchyma shows areas of fibrosis, and entrapped vessels show vasculitis.

Many of the pulmonary nodules of *Dirofilaria immitis* are incidental findings on chest radiography. Approximately 40% of reports describe relatively nonspecific symptoms such as chest discomfort, malaise, low-grade fever, cough or hemoptysis before diagnosis. Men account for 65% of cases, and the median age is 52 years with a range of 28 to 77 years.⁷ Eosinophilia is not a significant finding. The lesions are found in all portions of both lungs with significant sparing of the right middle lobe, which is secondary to the relative blood distribution. The nodules measure less than 2 cm in 75% of the cases. The nodules are removed to exclude carcinoma.

Some common intestinal parasites such as *Ascaris lumbricoides*, *Ancylostoma duodenale*, *Necator americanus* and *Strongyloides stercoralis* normally migrate through the lung. The migratory forms are larvae and should not be confused with this adult nematode. *Dirofilaria immitis* has a smooth trilaminar cuticle with two lateral cuticular ridges, a thick smooth muscle bundle, one (male) or two (female) reproductive ducts and an alimentary tract. Other dis-

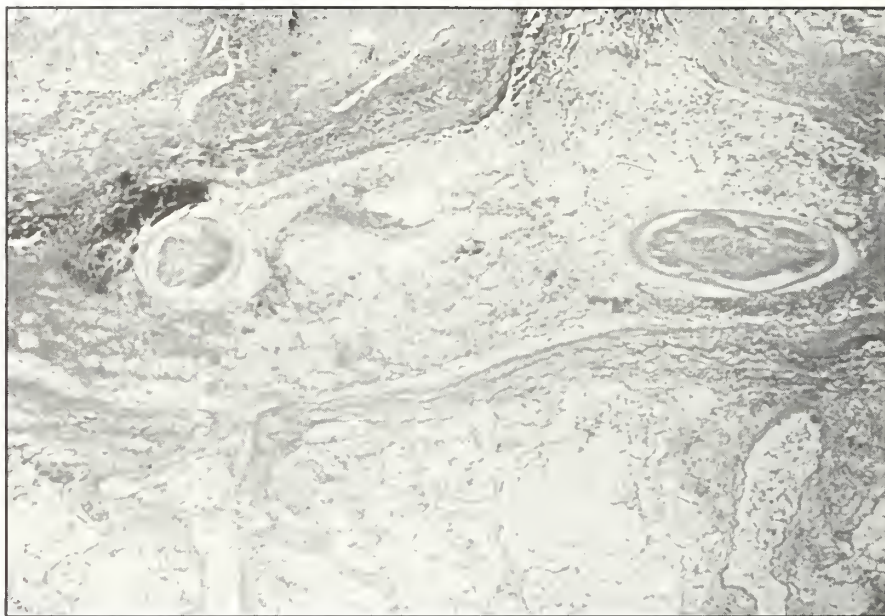


Figure 3: Cross-section of pulmonary vessel containing degenerating tangential section of *Dirofilaria immitis* (HE x 100).

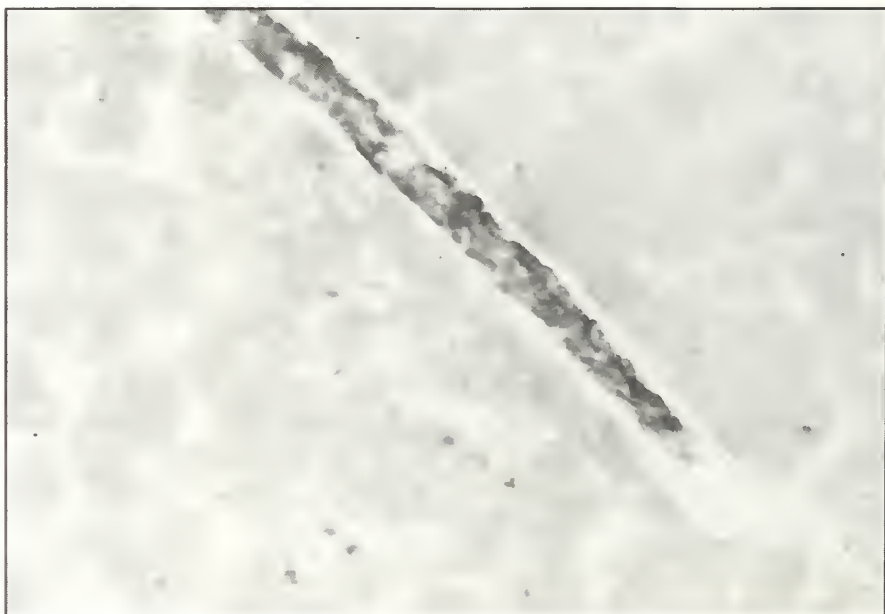


Figure 4: Peripheral blood smear of dog infected with *Dirofilaria immitis* showing microfilaria (Wright's stain 100x).

eases in the differential diagnosis include thromboembolism, polyarteritis nodosa, Wegener's granulomatosis, eosinophilic pneumoniae, eosinophilic granuloma, various fungi and carcinoma.

The epidemiology of human pulmonary dirofilariasis is complicated and involves the size of the dog population in a given area, percentage of *Dirofilaria immitis*-infected dogs, the mosquito vector dynamics (rain for breeding) and the behavior of humans regarding the vector and dog populations, such as camping.⁸ Control of pulmonary dirofilariasis requires the decrease of the mosquito vector population by eliminating breeding areas and elimination of canine heartworm infestation. Immunosuppression does not predispose to dirofilariasis.

The diagnosis of pulmonary dirofilariasis usually is made after open lung biopsy. Fine needle aspiration (FNA) of four patients was attempted, which produced only inflammatory cells. Recently, Kelly described the finding of *Dirofilaria immitis* cuticle within a cell block after FNA.⁹ FNA also may have a place in excluding malignancy in these patients.

Indirect hemagglutinin tests for *Dirofilaria immitis* have been used

to identify infection before surgery. Cross-reactions with other human helminth parasites make this test difficult to interpret. Glickman and associates recently reported good sensitivity by an enzyme-linked immunosorbent assay (Elisa) in active infection. They saw decreased sensitivity after worm death. The Elisa test was free of cross-reactivity.¹⁰

We have a case of pulmonary dirofilariasis, which must be included in the differential diagnosis of the "coin" lesion. □

Dr. Bloch is with the Departments of Pathology at Humana Women's and Winona Memorial hospitals in Indianapolis. Dr. Glynn is with the Department of Radiology at Reid Memorial Hospital in Richmond. Dr. Hinshaw is with the Department of Surgery at Reid Memorial Hospital in Richmond.

Correspondence and reprints: Ted Bloch, M.D., 8111 Township Line Road, Indianapolis, IN 46260.

The authors thank Phyllis Bennett and Norma Himelick for secretarial assistance.

References

1. de Magalhaes PS: Descripcão de uma espécie de filárias encontradas no coração humano, predida de uma contribuição para o estudo de filariose de Wucherer e do respectivo parasito adulto, a *Filaria bancrofti* on *Filaria sanguis hominis*, Rev. dos cursos practicos e teoricos da Faculd. de Med do Rio de Janeiro, 3 ANN 1887; 3:4193.
2. Fausi EC, Thomas EP, Jonea J: Discovery of human heartworm infection in New Orleans. *J Parasitol*, 27:115-122, 1941.
3. Dashiell CF: A case of dirofilariasis involving the lung. *Am J Trop Med Hyg*, 10:37-39, 1961.
4. Ciferri F: Human pulmonary dirofilariasis in the West. *West J Med*, 134:158-162, 1981.
5. Merrill JR, Otis J, Logan WD Jr, et al: The dog heartworm (*Dirofilaria immitis*) in man. An epidemic pending or in progress? *JAMA*, 243:1066-1068, 1980.
6. Przyjemski CJ: *Dirofilaria immitis* lung nodules (letter). *JAMA*, 245:30-31, 1981.
7. Ciferri F: Human pulmonary dirofilariasis in the United States: A critical review. *Am J Trop Med Hyg*, 31:302-308, 1982.
8. Grieve RB, Lok JB, Glickman LT: Epidemiology of canine heartworm infection. *Epidemiol Rev*, 5:220-246, 1983.
9. Kelly WT, Firoos-Abadi AA, Roszkowski A, et al: Pulmonary dirofilariasis diagnosed by computerized tomography scan controlled percutaneous needle aspiration. *Aust NZ J Med*, 15:656-657, 1985.
10. Glickman LT, Grieve RB, Schwantz PM: Serologic diagnosis of zoonotic pulmonary dirofilariasis. *Am J Med*, 80:161-164, 1986.

Confirmation of metastatic prostatic carcinoma to lung by immunohistochemistry

Timothy T. Dick
Pramod K. Carpenter, M.D.
Carlene E. Wolf

The use of immunoperoxidase staining for antigen characterization in fine needle aspirates (FNA) and other cytologic preparations has been proposed in past years.¹⁻³ Prostatic acid phosphatase (PAP) and prostatic specific antigen (PSA) immunoperoxidase stains have been used as specific methods for diagnosing prostatic carcinoma and, in particular, differentiating prostatic carcinoma from other carcinomas manifesting as metastatic lesions.⁴⁻⁶

The specificity and sensitivity of PAP and PSA for prostatic tissue have been reported to be quite high.⁷ This study evaluates the use of PAP and PSA immunoperoxidase stains in two cases with FNA of the lung in combination with histologic preparations of the prostate to determine tumor cytogenesis.

Case reports

Case 1 – The patient had a known, histologically determined prostatic carcinoma and a recently identified lung lesion. Fine needle aspiration of the lung lesion demonstrated adenocarcinoma. The prostatic tissue and prostatic tumor stained positively for both

Abstract

In recent years, immunoperoxidase staining of fine needle aspirates has been proposed. This study examines the use of immunoperoxidase staining of prostatic acid phosphatase and prostatic specific antigen in two cases where differentiation of prostatic carcinoma from other carcinomas manifesting as metastatic lesions is essential. The histologic differentiation of primary and metastatic disease, which has significant therapeutic and prognostic implications, has been enhanced by the use of immunoperoxidase staining. The presented cases demonstrate the ease with which immunoperoxidase staining can be done in a community hospital.

PAP and PSA.

Case 2 – The patient had adenocarcinoma of the right lung by FNA with subsequent FNA of the prostate demonstrating adenocarcinoma. Prostatic tissue and prostatic tumor stained positively for both PAP and PSA.

Materials and methods

All FNA materials were prepared and stained using the Histoset Immunoperoxidase Kit and procedure (Ortho Diagnostic Systems, Raritan, N.J.). Samples were incubated for 20 minutes in a 0.6% hydrogen peroxide-methanol solution to inactivate endogenous peroxidase activity.

Following the peroxide treatment, samples were coated with normal sheep serum to block non-specific protein binding and incubated at 37° C for five minutes.

The samples were then incubated with primary antisera to either PAP or PSA (rabbit) for 10 minutes.

For preparation of the peroxidase-antiperoxidase system, the samples were coated with swine anti-rabbit serum for five minutes followed by incubation with peroxidase-antiperoxidase complex for five minutes. Subsequent treatment with 3-amino-9-ethylcarbazole (AEC) for 10 minutes resulted in the formation of a brownish-red color where primary antibody bound PAP and PSA present in the sample. Between incubations, the slides were washed thoroughly with phosphate-buffered saline, and all samples were counterstained with Lerner I Hematoxylin. All histologically prepared material was treated in the same manner ex-

cluding the hydrogen peroxide-methanol incubation.

Results

The Table depicts the staining pattern of lung and prostatic tissue when testing for PAP and PSA antigens. The histologically defined prostatic carcinomas of both cases stained positively for PAP and PSA. The lung lesions of case 1 stained positively for PSA and PAP, but the lung lesions of case 2 did not stain for either antigen.

Discussion

Occasionally, men with prostatic malignancy have concomitant lung lesions. Often, the histologic differentiation between primary and metastatic lung carcinoma is difficult. However, commercially available immunoperoxidase kits have enhanced the reliability of distinguishing between primary lung carcinoma and metastatic disease from a primary prostatic carcinoma.

Case 2 demonstrates lesions that

are negative for PAP and PSA. This finding virtually eliminates prostatic carcinoma metastasis to lung from consideration. The further finding of prostatic lesion helps to eliminate lung carcinoma metastasis to prostate and also establishes the diagnosis of a primary prostate cancer. Therefore, case 2 represents two separate primary carcinomas, one arising in the lung and the other in the prostate.

Case 1 is different because the lung lesion stained positively for both PAP and PSA, indicating prostatic carcinoma metastasis to the lung.

The differentiation of primary and metastatic disease has significant therapeutic and prognostic implications. The above cases illustrate the relative ease with which PAP and PSA immunoperoxidase staining can be used in a community hospital for recognition and differentiation of metastatic prostatic carcinoma. □

Correspondence and reprints:

Timothy Dick, Department of Biology, University of Kentucky, Owensboro Community College, Owensboro, KY 42301.

Timothy Dick is with the Department of Biology at the University of Kentucky-Owensboro Community College in Owensboro, Ky. Dr. Carpenter is with the Department of Pathology at the Meadville Medical Center in Pennsylvania. Carlene Wolf is with the Department of Pathology at St. Mary's Medical Center in Evansville.

References

1. Nadji M: The potential value of immunoperoxidase techniques in diagnostic cytology. *Acta Cytol*, 24:442-447, 1980.
2. Taylor CR: Immunohistological approach to tumor diagnosis. *Oncology*, 35:189-197, 1978.
3. Nadji M, Tabei SZ, Castro A, Chu TU, Morales AR: Prostatic origin of tumors: An immunohistochemical study. *Am J Clin Pathol*, 73:735-739, 1980.
4. Lippert MC, Bensimon H, Javadpour N: Immunoperoxidase staining of acid phosphatase in human prostatic tissue. *J Urol*, 128:114-116, 1982.
5. Lee P, Lam KW, Li CY, Yam LT: A simple immunohistochemical method for the detection of prostatic acid phosphatase. *Arch Pathol Lab Med*, 105:205-206, 1981.
6. Jobsis AC, DeVries GP, Anholt RRH, Sanders GTB: Demonstration of the prostatic origin of metastases. *Cancer*, 41:1788-1793, 1978.
7. Allhoff EP, Proppe KH, Chapman CM, Lin CW, Prout GR: Evaluation of prostate specific acid phosphatase and prostate specific antigen in identification of prostatic cancer. *J Urol*, 129:315-318, 1983.

Table

Results of immunoperoxidase staining of FNA of the lung and prostatic tissue for PAP and PSA

Case	Prostatic tissue + tumor		Lung tumor	
	PAP	PSA	PAP	PSA
One	+	+	+	+
Two	+	+	-	-

Adolescent pregnancy: Psychosocial issues

Lana K. Patch, M.D.
Huntington

Adolescent health issues currently are the focus of intense interest by medical professionals, the media and the public. During the past 30 years, adolescents have been the only population in the United States who have not improved their health status. In fact, both morbidity and mortality rates for adolescents are 11% higher now than they were 20 years ago.

Two major demographic trends currently are having a significant impact on how adolescent health issues will affect the United States. First, the baby boom from 1954 to 1964 caused the number of adolescent minors 12 to 17 years of age to reach a maximum in 1974, which was in excess of 25 million, thereby increasing the prevalence of many adolescent health problems. In 1985, the number of adolescent minors in the United States was 20.9 million. This downward trend will continue until 1990 before again rising. Secondly, when compared to whites, the persistently younger age of death and the higher birth rates of Hispanic and nonwhite populations in the United States mean that minorities are clustering in the younger age ranges. By 1990, it is postulated that one-third of the population under 20 years old will be Hispanic, and

that one-fifth of all youths will live at or below the poverty level.

A major area of concern in adolescent health is teenage pregnancy. The pregnancy frequently is complicated by other social and psychological factors. These factors include concomitant substance abuse, sexually transmitted diseases, loss of educational opportunities, poverty and the long-range problems of the children born to the adolescents. Also of interest is the cost to society of teenage childbearing.

Adolescent sexuality and pregnancy

The modern adolescent matures in a complex urban society in which it is expected that educational and vocational training will delay sexual gratification and marriage. This leaves a 5- to 10-year gap between sexual maturity and sexual activity legitimized by marriage. Faced by conflicting peer and parental values, the image of sex as portrayed by the media and their own developing value systems, the adolescent frequently initiates sexual activity during a developmental stage characterized by rebellion against parental values, risk-taking behaviors and the tendency to act without considering the consequences. The mean age at first intercourse is now less than 15 years, and of the 29 million adolescents older than age 12, approximately 12 million are sexually active. The

percentage of adolescent girls engaging in premarital intercourse has increased from 27.6% in 1971 to 47% in 1982.

The adolescent girl commonly experiences guilt as she becomes sexually active. She may deny that she is sexually active or that she is going to continue to be sexually active. This guilt and denial may make it difficult to "plan" sexual activity with the use of contraceptives. Therefore, of adolescent girls ages 15 to 19, only 50% will use contraception at the time of first intercourse, and only 33% will routinely use birth control thereafter. The most common methods of contraception at first intercourse are condoms and withdrawal. Hence, it is not surprising that one in five female teenagers becomes pregnant within one month of her first sexual contact, and that one in two will become pregnant within six months of her first sexual contact.

Multiple social factors appear to correlate with adolescent pregnancy rates. High rates of population growth and residential mobility during the previous decade, a high crime rate, a high teenage suicide rate, extensive circulation of sexually explicit magazines, a large percentage not voting in elections and a high level of stress are all associated with high teenage pregnancy rates. The percentage of a state's population that belongs to a fundamentalist religion is positively associated with

adolescent birth rates. Political liberalism correlates with relatively low birth rates but with a somewhat higher likelihood of the pregnancy being terminated by abortion.

The United States has the highest teenage pregnancy rate of any western nation (rates are on an annual basis per 1,000 estimated population). Our current adolescent pregnancy rate is 95 per thousand with Britain and Canada in second and third place with 45 per thousand each. Although there has been a

decline in the total birth rate in the United States, the proportion of deliveries by adolescents (age 11 to 18) has increased from 17% in 1966 to a current level of 20%. The most remarkable trend in this

century has been the increase in out-of-wedlock births to teenagers of 34%. Even so, the illegitimacy rate of 29.7 per thousand for teenagers is considerably less than the rate of 42 per thousand for women aged 20 to 24 years. Furthermore, the pattern of early pregnancy is shifting, with the rates of births to mothers older than age 17 decreasing, while the rates for those younger than age 17 increasing.

The peak birthrate now occurs at age 16 in the United States. Of the 1.1 million adolescent pregnancies per year, 27% result in births to married couples, 32% result in out-of-wedlock births, 13% terminate in spontaneous abortion and 38% terminate in induced abortion. The younger an adolescent mother is at the

time of her first pregnancy, the more children she may be expected to have, and the closer their spacing will be.

The adolescent who delivers before age 17 has a 60% chance of becoming pregnant again before age 19.

The adolescent mother

When an adolescent girl becomes pregnant, considerable upheavals in her family's function frequently result. Initially, anger appears to be the most common

reaction at school, or to drop out because she is not interested.

Data from the National Longitudinal Survey of Work Experience of Youth indicate that among young girls who become pregnant, dropped out of school and subsequently delivered an infant, only 53% had completed their high school requirements by the age of 26. This compares with a school completion rate of 95% for women 20 to 26 years of age who bore no children. While statistical data are poor, teenage pregnancy seems to

remain the most frequent cause for girls to terminate education prematurely. In addition, those who get pregnant before completion of high school are, on the average, two years behind

***Of the 1.1 million
adolescent pregnancies per year,
27% result in births to married couples,
32% result in out-of-wedlock births,
13% terminate in spontaneous abortion and
38% terminate in induced abortion.***

parental response. Accompanying the anger is often a strong sense of shame and guilt: shame about what neighbors and friends will think and guilt about the role the parents may have played in inadvertently contributing to the conception. The parental anger may lead to rejection of the adolescent, which can persist throughout pregnancy. The adolescent therefore not only has her own guilt and shame with which to deal, but also the potential loss of emotional and financial support from her family. Further adding to the sense of loss, the boyfriend also may reject the girl and may take no responsibility for the pregnancy.

Pregnancy may permit an adolescent mother to drop out of a difficult social or academic situ-

grade level at the time of pregnancy, indicating school failure to be a contributing factor to premature motherhood. Leaving school early and poverty are closely linked, for unemployment is far more likely without a high school diploma.

If the pregnant adolescent marries, her marriage is much more likely to end in separation or divorce than older marriages. According to the American Medical Association White Paper on Adolescent Health, three of five premaritally pregnant teenagers aged 17 and younger are separated within six years of marriage.⁵ Once separated, young mothers are far less likely to receive child support payments than are older mothers; only one in 10 mothers aged 14 to 24 receives child sup-

port payments, compared to one in four older mothers. Furthermore, marrying to legitimize a birth reduces the likelihood that an adolescent will return to school after childbearing.

Maternal mortality and morbidity also are higher for adolescents as compared to older mothers. Maternal mortality is 2.5 times higher (18 vs. 7.1 per 100,000) among girls younger than 15, as compared to mothers in their twenties. The mortality rate is 13% higher among the 15- to 19-year-old age group. Adolescent mothers are 92% more likely to suffer from nonfatal anemia, and 15% more likely to suffer from preeclampsia as are women in their twenties. While high quality prenatal care and good nutrition can reduce the negative medical consequences for adolescents and their children, many adolescents do not qualify for public assistance to pay for such care, and many do not seek prenatal care until the pregnancy is well-advanced.

Adolescents have little knowledge of the financial costs of medical care and childbearing or of the emotional and psychological costs of child care. In particular, they may have inadequate knowledge of normal child growth and development and childrearing practices. They commonly have unrealistic expectations of their children regarding their activities and responses, and frequently slap or spank a child or infant long before the child can be expected to understand. The adolescent mother also may experience much more difficulty in effectively bonding with her infant than an older mother and subsequently is more likely to transfer primary childrearing responsibility to an older female relative.

The frequent lack of childrearing knowledge and maturity in an adolescent makes her exceedingly vulnerable to abusing her child. According to Klein, among children who were neglected or abused in Georgia, 58% had parents who had begun childbearing in their teens.¹

***Adolescent mothers
are 92% more likely
to suffer from
nonfatal anemia,
and 15% more likely
to suffer from pre-
eclampsia as are
women in their
twenties.***

The child of the adolescent

The risk of a baby dying in the first year of life increases as the age of the mother decreases below 20 years. Almost 6% of first babies born to mothers younger than 15 die in their first year of life, a rate 2.4 times higher than for babies born to women in their twenties. Part of this increased mortality may be attributed more to lack of adequate medical care than to the age of the mother. Also, the risk of a low birth weight infant increases as the age of the adolescent mother decreases. A mother younger than 15 has twice the risk of delivering a low birth weight infant than a mother in her twenties. Among mothers aged 15 to 17 and 18 to 19, the relative risks of bearing a low birth weight infant are 1.5 and 1.3 respectively, when compared to older mothers. Again, part or all of these risks may be related to inadequate

medical care among adolescent mothers.

The intelligence and cognitive development of children born to teenage mothers appear to have the potential to be impaired, especially in mothers younger than 16. According to Hardy,⁴ Stanford-Binet IQ scores at age 4 of children born to mothers younger than 16 had a 25% incidence of measured IQs less than 79, as compared to a 12% to 13% incidence for children of mothers at any other age. Fewer than 5% of the children of mothers younger than 16 have a measured IQ of 110 or above. The percentage of high IQ scores, 110 and above, tended to increase with maternal age at birth, with the highest incidence found in the children of women older than 30 at less than 15%.

The public cost of adolescent childbearing

In 1985, \$16.65 billion of public support was provided for women who first gave birth as teenagers. This support was paid through three programs: Medicaid, food stamps and Aid to Families with Dependent Children (AFDC). At any time, only 3% to 4% of the AFDC caseload consists of families headed by girls who are teenagers, but approximately half of AFDC households were started as a result of teenage births. Mothers aged 15 to 17 are 4.6 times more likely to receive welfare than mothers who give birth at ages 20 to 24. The public will pay \$13,902 during the next 20 years for the family started by each birth to a teenager in 1985.

Conclusion

Adolescent pregnancy is a difficult national problem with diverse sociological and personal causa-

tive factors. Especially when poverty is a complicating factor, there is often a history of disinterest in school, educational difficulty, diminished societal adjustment and feelings of anomie. The typical female adolescent's behavior is influenced more by her peers' behavior and her boyfriend's expectations than by parental or societal values. According to Klein, in a survey of teenagers who recently delivered a child, the most common source of sex information was girlfriends (48%), boyfriends (25%) or a school nurse or teacher (22%). Only 5% listed parents or relatives as the primary source of sex information.¹

Although nearly 80% of national schools provide sex education, it is largely limited to menstruation and sexual physiology. School systems fear that they lack public and parental support for more comprehensive programs that would include information about human sexuality and relationships including sexual exploitation, family life education, preparation for parenthood and factual information regarding birth control and pregnancy prevention. Sex education can be provided in a context where the validity of abstinence and postponement of first and subsequent sexual activity can be emphasized.

Adolescent group discussions about sexuality, pregnancy and contraception, when moderated by knowledgeable, nonjudgmental adults, can aid adolescents in developing decision-making skills, in dealing with their own emotions about sex and in deciding what their own moral values will be. By the use of informed peer

group discussions, the subsequent development of negative peer pressure against pregnancy, the most powerful motivator of adolescent behavior, can be utilized. This method has been used in many programs, resulting in a decrease in unwanted pregnancies and an increase in effective contraceptive use.^{15,16}

The adolescent boy is currently not well-studied. Almost all contraceptive information and the use of peer group pressure to modify sexual behavior currently are aimed at the adolescent girl. National data continue to suggest that adolescent boys consider contraception to be primarily a girl's responsibility.

Preventive measures that are now being implemented by health care professionals, schools, families, churches and, perhaps most effectively, by adolescents themselves will ideally help lower adolescent birth rates in the future. If this can be done effectively, our society may be able to prevent much of the damage done to one-fifth of our next generation through premature childbearing. □

The author, now a family practitioner in Huntington, submitted this essay in the 1988 Resident Physician Essay Contest.

Correspondence: Lana K. Patch, M.D., 1255 Engle St., Huntington, IN 46750.

References

1. Klein L: Antecedents of teenage pregnancy. *Clin Obstet Gynecol*, 21(4):1151-1159, 1978.
2. Osofsky JD, Osofsky HJ: Teenage pregnancy: Psychosocial considerations.

Clin Obstet Gynecol, 21(4):1161-1173, 1978.

3. Tyrer LB, Mazlen RG, Bradshaw LE: Meeting the special needs of pregnant teenagers. *Clin Obstet Gynecol*, 21(4):1199-1214, 1978.

4. Hardy JB, Welcher DW, Stanley J: Long-range outcome of adolescent pregnancy. *Clin Obstet Gynecol*, 21(4):1215-1232, 1978.

5. AMA White Paper on Adolescent Health. December, 1986.

6. AMA Council on Adolescent Health: Facilitating the transitions of adolescents. *JAMA*, 257(24):3405-3406, 1987.

7. Blum R: Contemporary threats to adolescent health in the United States. *JAMA*, 257(24):3390-3395, 1987.

8. Hollingsworth DR, Felice M: Teenage pregnancy: A multiracial sociologic problem. *Am J Obstet Gynecol*, 155:741-746, 1986.

9. McLaughlin SD, et al: The effects of the sequencing of marriage and first birth during adolescence. *Fam Plann Perspect*, 18:12-18, 1986.

10. Marks JS, Cates W: Sex education: How should it be offered? *JAMA*, 255:85-86, 1986.

11. Burt MR: Estimating the public costs of teenage childbearing. *Fam Plann Perspect*, 18:221-226, 1986.

12. Singh S: Adolescent pregnancy in the United States: An interstate analysis. *Fam Plann Perspect*, 18:210-220, 1986.

13. Mott ER: The pace of repeated childbearing among young American mothers. *Fam Plann Perspect*, 18:5-12, 1986.

14. National Center for Health Statistics: *Teenage Childbearing United States 1966-1975*. Washington, D.C.: Government Printing Office; 1977.

15. Polit DF, Kahn JR: Project redirection: Evaluation of a comprehensive program for disadvantaged teenage mothers. *Fam Plann Perspect*, 17:150-155, 1985.

16. Apte DV: A plan to prevent adolescent pregnancy and reduce infant mortality. *Public Health Rep*, 102(1):80-86, 1987.

17. Glasbrenner K: Physicians taking adolescent medicine from benches to trenches. *Medical News*, 255:4, January 1986.

18. Vincent ML, Clearie AR, Schluchter MD: Reducing adolescent pregnancy through school and community-based education. *JAMA*, 257(24):3382-3386, 1987.

1989 ISMA convention highlights



George H. Rawls, M.D., standing by his wife Lula, is inaugurated as ISMA's new president by past president Fred W. Dahling, M.D.



Robert M. Sweeney, M.D., South Bend, received the 1989 Physician Community Service Award for his contributions to many community organizations.



Scientific exhibit winners are (from left): Debra Prow, first; Gayle Stewart Redding, second; and Deanne Lazer, third.



Pictured at the House of Delegates final session are (front, from left) Dallas Coate, M.D., Lebanon; Bernard Emkes, M.D., Indianapolis; and Bruce Romick, M.D., Evansville; and (back, from left) George Rawls, M.D., Indianapolis; Fred Dahling, M.D., New Haven; C. Dyke Egnatz, M.D., Schererville; and William Beeson, M.D., Indianapolis.



Alan Nelson, M.D., president of the American Medical Association, addresses a news conference.

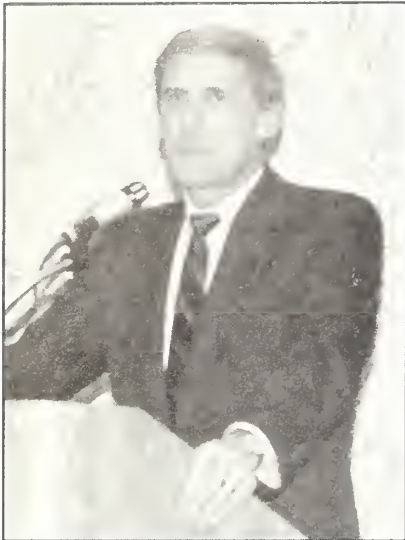


Lynn Witty, M.D., and Jim Lutz, M.D., resident delegates; John Fallon, M.D., resident trustee; and Mark Duerden, resident delegate (left to right); attend the final session of the House of Delegates.



Shirley Kahlouf, M.D., Marion, and her husband, Herbert Khalouf, M.D., pose for a souvenir picture at the Hawaiian luau theme reception. Greg Huckleberry is the photographer.

Seated at the Past Presidents Luncheon are (from left) John Knoté, M.D., Lafayette; Nelson Rue, M.D., president of the Kentucky Medical Association; and Paul Siebenmorgen, M.D., Terre Haute.



Sen. Dan Coats (R-Ind.) serving the unexpired part of Vice President Dan Quayle's term, speaks at the IMPAC luncheon.



Talking before the first session of the House of Delegates opens are (from left) Charles Frankhouser, M.D., Fort Wayne; Charles Aust Sr., M.D., Fort Wayne; and William Beeson, M.D., Indianapolis.



Eddie Grogan portrays 1836 physician Dr. George Washington Campbell during the general education session at the Indiana Medical History Museum.



Hamlin Lindsay, M.D., Washington, Ind., talks with exhibitor Dave Argabright, a representative of Medi-Span.

1989 ISMA convention coverage

Call to order, miscellaneous business

The Indiana State Medical Association House of Delegates convened its 140th Annual Convention at 9 a.m., EST, Friday, Oct. 27, 1989, at the Westin Hotel in Indianapolis. The final session of the House of Delegates convened at 9 a.m., EST, Sunday, Oct. 29, 1989.

Presiding at both sessions was C. Dyke Egnatz, M.D., speaker, Schererville, assisted by William Beeson, M.D., vice speaker, Indianapolis. Helen Czenkusch, M.D., Indianapolis, served as parliamentarian. Chaplain R. Richard True, Anderson, presented the invocation.

Approval of minutes

The proceedings of the 139th Annual Meeting of the House of Delegates, Indiana State Medical Association, conducted Oct. 21-23, 1988, at the Radisson Hotel, Indianapolis, and published in the January 1989 issue of *INDIANA MEDICINE*, were approved.

Addresses/reports

The address of the president, president-elect and president of the ISMA Auxiliary (all referred to Reference Committee 1) were filed with commendation.

All reports (printed in the October 1989 issue of *INDIANA MEDICINE*) and additional supplemental reports were filed, with the exception of the treasurer's report, which is referred for audit.

Election of officers

George Rawls, M.D., Indianapolis, as president-elect, succeeded to the office of president. Michael

Mellinger, M.D., LaGrange, was elected president-elect. Other elections included:

Treasurer – Max Wesemann, M.D., Franklin

Assistant treasurer – John Bizal, M.D., Evansville

Speaker of the House – C. Dyke Egnatz, Schererville

Vice speaker of the House – William H. Beeson, M.D., Indianapolis

Chairman, Board of Trustees – William Van Ness II, M.D., Summitville

Clerk/chairman pro tem, Board of Trustees – William Cooper, M.D., Columbus

At large member, Executive Committee – William Cooper, M.D., Columbus

At large member, Executive Committee – Clarence Clarkson, M.D., Richmond

Election of delegates, alternate delegates to the AMA

The following were elected to two-year terms as delegates and alternate delegates to the American Medical Association (terms expire Dec. 31, 1991).

Delegates:

Marvin E. Priddy, Fort Wayne
Peter R. Petrich, Attica
Herbert Khalouf, Marion

Alternates:

John MacDougall, Indianapolis
William Van Ness II, Summitville
Richard Reedy, Yorktown

Holdover AMA delegates and alternate delegates (terms expire Dec. 31, 1990) are:

Delegates:

George Lukemeyer, Indianapolis
Alvin J. Haley, Carmel

John Knotte, Lafayette
Alternates:

Edward Langston, Indianapolis
Max Hoffman, Covington
Shirley Khalouf, Marion

Standing ovations from the House of Delegates were accorded Martin J. O'Neill, M.D., Valparaiso, and Thomas C. Tyrrell, M.D., Hammond, for their past dedicated service to the Indiana delegation to the American Medical Association.

Trustees/alternates, 1989-1990

The House of Delegates confirmed the newly elected/re-elected trustees and alternates, 1989-1990.

Trustees:

District 1 – Tom Harmon, Evansville

District 2 – Paul Wenzler, Bloomington

District 3 – Gordon Gutmann, Jeffersonville

District 4 – William Cooper, Columbus

District 5 – Fred Haggerty, Greencastle

District 6 – Clarence Clarkson, Richmond

District 7 – Donna Meade, Indianapolis

District 7 – John Records, Franklin

District 7 – Peter Winters, Indianapolis

District 8 – William Van Ness II, Summitville

District 9 – R. Adrian Lanning, Noblesville

District 10 – Nicholas Polite, Hammond

District 11 – Jack Higgins, Kokomo

District 12 – John Thomas, Fort

Wayne

District 13 – Alfred Cox, South Bend

RMS – John Fallon, Indianapolis

MSS – Todd Rumsey, Indianapolis

Alternate trustees:

District 1 – Bruce Romick, Evansville

District 2 – Jerome Melchior, Vincennes

District 3 – Richard Gardner, New Albany

District 4 – George Alcorn, Madison

District 5 – Roland Kohr, Terre Haute

District 6 – Ray Haas, Greenfield

District 7 – Ronald Blankenbaker, Indianapolis

District 7 – Willis Stogsdill, Indianapolis

District 7 – Charles McCormick III, Greenwood

District 8 – John Osborne, Muncie

District 9 – Stephen Tharp, Frankfort

District 10 – Frank Sturdevant, Valparaiso

District 11 – Laurence Musselman, Marion

District 12 – Charles Frankhouser, Fort Wayne

District 13 – Richard Houck, Michigan City

RMS – Lynn Witty, Anderson

MSS – Carla Brumbaugh, Indianapolis

Future meetings

1990 ...Nov. 2-4Radisson

1991 ...Nov. 8-10Westin

1992 ...Nov. 13-15Westin

1993 ...Oct. 22-24Westin

1994 ...Oct. 21-23...Westin (tentative)

In memoriam

Tribute to members of the Indiana State Medical Association who have died since the 1988 session.

Edmond O. Alvis, M.D., Marion County Medical Society

Frank B. Bard, M.D., Jackson County Medical Society

Howard W. Beaver, M.D., Marion County Medical Society

Richard G. Blair, M.D., Huntington County Medical Society

Eugene F. Boggs, M.D., Marion County Medical Society

Clyde G. Botkin, M.D., Delaware-Blackford County Medical Society

Archie Brown, M.D., Marion County Medical Society

William M. Browning, M.D., Marion County Medical Society

George D. Buckner, M.D., Fort Wayne-Allen County Medical Society

Paul Burns, M.D., Delaware-Blackford County Medical Society

Charles B. Carty, M.D., Floyd County Medical Society

Ko K. Chen, M.D., Marion County Medical Society

Rex W. Dixon, M.D., Madison County Medical Society

Ellery T. Drake, M.D., Morgan County Medical Society

Harold L. Ericson, M.D., Tipton County Medical Society

Mars B. Ferrell, M.D., Madison County Medical Society

William J. Fitzgerald, M.D., Marion County Medical Society

Max W. Freeman, M.D., Marion County Medical Society

Russell A. Gardner, M.D., LaPorte County Medical Society

Edgar A. Garland, M.D., Vanderburgh County Medical Society

Richard E. Gery, M.D., Tippecanoe County Medical Society

Samarjit S. Ghuman, M.D., Porter County Medical Society

Joseph M. Gilson, M.D., Marion County Medical Society

C. W. Goebel, M.D., Fort Wayne-Allen County Medical Society

Murray E. Harden, M.D., Tippecanoe County Medical Society

Carl B. Harris, M.D., Marion County Medical Society

Weston A. Heinrich, M.D., Vanderburgh County Medical Society

Roger Hemphill, M.D., Grant County Medical Society

Jerome E. Holman, M.D., Marion County Medical Society

Walter T. Jurgensen, M.D., Fort Wayne-Allen County Medical Society

Thomas F. Keough, M.D., Kosciusko County Medical Society

Robert B. Kessler, M.D., Vanderburgh County Medical Society

Knight L. Kissinger, M.D., Steuben County Medical Society

James M. Leffel, M.D., Marion County Medical Society

Yng C. Lin, M.D., Kosciusko County Medical Society

St. John Lukemeyer, M.D., Dubois County Medical Society

Leander A. Malone, M.D., Vigo County Medical Society

Ott B. McAtee, M.D., Jefferson-Switzerland County Medical Society

Fred R. McCrea, M.D., Vigo County Medical Society

Thomas O. Middleton, M.D., Owen-Monroe County Medical Society

Robert B. Miller, M.D., Fort Wayne-Allen County Medical Society

Robert J. Miller, M.D., Morgan County Medical Society

Mathias S. Mount, M.D., Greene County Medical Society

Leon Nazarian, M.D., Delaware-Blackford County Medical Society

Leo R. Nonte, M.D., Vanderburgh County Medical Society

Kenneth L. Olson, M.D., St. Joseph County Medical Society

Arthur C. Payne, M.D., Lake County Medical Society

Andrew Petrass, M.D., St. Joseph County Medical Society

Charles H. Proudfit, M.D., St. Joseph County Medical Society

Frank M. Rabb, M.D., Marion County Medical Society

Paul D. Reynolds, M.D., Johnson County Medical Society

Floyd T. Romberger, M.D., Marion County Medical Society

Eli Rubens, M.D., St. Joseph County Medical Society

Harry W. Salon, M.D., Fort Wayne-Allen County Medical Society

James J. Schaffer, M.D., Owen-Monroe County Medical Society

Victor V. Schriefer, M.D., Vanderburgh County Medical Society

Hiram T. Sexson, M.D., Marion County Medical Society

Harry I. Shulruff, M.D., Lake County Medical Society

Gerald Sinkovic, M.D., Marion County Medical Society

George F. Slama, M.D., Lake County Medical Society

Mark E. Smith, M.D., Henry County Medical Society

Frederic Spencer, M.D., Knox County Medical Society

Donald E. Wood, M.D., Marion County Medical Society

Roscoe S. Yegerlehner, M.D., Tippecanoe County Medical Society

William L. Zink, M.D., Jefferson-Switzerland County Medical Society

George H. Rawls, M.D., takes office as president of the ISMA



George H. Rawls, M.D.

George H. Rawls, M.D., took office as president of the Indiana State Medical Association Oct. 28 at its 140th annual meeting at the Westin Hotel in Indianapolis.

Dr. Rawls, a general surgeon, has pledged to work for: quality medical care for indigent patients, basic health insurance coverage for the presently uninsured, school health clinics in those communities where they are appropriate and needed and the prevention of infant mortality.

Some of the offices Dr. Rawls has held include president of the Marion County Medical Society and treasurer of the ISMA. He recently completed his second four-year term as a member of the

Indiana Medical Licensing Board. His other involvements include the NAACP and the board of the Indianapolis Urban League.

He has received numerous awards throughout his medical career including the Sagamore of the Wabash, the Urban League's Henry J. Richardson Award for Community Service and the Howard University School of Medicine's Distinguished Alumni Award.

Dr. Rawls graduated from Florida A & M University with highest honors and earned his medical degree from Howard University School of Medicine. He is a diplomate of the American Board of Surgery and is a member of the Southeastern Surgical Congress. □

Michael O. Mellinger, M.D., chosen ISMA president-elect

Michael O. Mellinger, M.D., a LaGrange family practitioner, was chosen president-elect of the Indiana State Medical Association Oct. 29 during the 140th annual convention.

Dr. Mellinger was elected by the House of Delegates during the final session of the House. He will become ISMA president during its next convention in November.

Dr. Mellinger is a 1964 graduate of the Indiana University School of Medicine. He has been 12th District Medical Society president, vice-president and trustee. He

has served the ISMA as assistant treasurer, member at large of the executive committee and chairman of the Commission on Medical Services, Subcommittee on Insurance, Board of Trustees and Committee on AIDS Policy.

He also has been president of the LaGrange County Medical Society and currently is medical director of the LaGrange County Hospital Emergency Medical Services and the director of quality assurance at the hospital.

Dr. Mellinger is certified by the American Board of Family Practice. □



Michael O. Mellinger, M.D.

Address of the president, Fred Dahling, M.D.

For the past year, I have had the privilege of serving as your president of our Indiana State Medical Association. The time has passed very quickly. I have had the opportunity to travel and the singular experience to meet and make many new friends. Let me tell you that physicians and their families are great people with whom to associate. But, the best live and practice here in our Hoosier state.

During my travels, I have listened to speeches and have had the opportunity to make some myself. I have had to answer numerous questions, some of which were difficult and some of which were easy as: Did you enjoy the year? I have. Do you think the sacrifices of the office were worth it? They were. Would you do it over again? Definitely, yes! Would you do anything differently? Probably not.

Now as I close out my year in office, I have several duties to complete, and one of those is to deliver this annual address which reports the status of the profession to the membership. This is my report to you.

One year ago in my address as president-elect, I stressed the need for unity within the profession. That need is still of paramount importance one year later. The power moguls of this and the next decade will continue to be the insurance industry, government and the business community. They will continue to attempt to manipulate our profession, and they will be successful if we permit apathy and disunity to deliver us into the morass of bureaucratic practice.

Today, it is important to understand our problems before we formulate solutions. We must nurture the profession by promoting it and by exciting young people to join our ranks. To accomplish this, we have to have the integrity to do what is right despite the consequences that may be the result. And, to maintain the trustworthiness that we all seek, we must continue to do the yeoman's job required of us to keep the esteem of the most important person in our professional lives: our patient.

What has transpired over these past months that has affected our unity? I am happy to report that there are more of us to unify. Membership in ISMA is at an all-time high of more than 7,000 members. Membership in our PAC has increased to more than 1,500, a good 28 percent increase. Financially, we are in an enviable solvent position. We have an excellent, hard-working staff orchestrated by an outstanding executive director. We continue to be successful in the legislative arena thanks to the work of many of our members and auxiliaries. New programs such as our physician's assistance venture have made a good start and will grow. Our successes are many, our failures surprisingly few. By all appearances, we should be in excellent condition as we enter the decade of the nineties and the future that is the twenty-first century. But are we?

We continue to practice in a menacing environment beset by many social and economic snares. Of all the vexing problems which we face, the one most troublesome for all of us seems to be in the realm of third-party payors, espe-

cially the government programs, both state and federal. Your association has attempted to unravel some of the problems that have resulted from the federal bureaucratic regulations in the Medicare programs. We have regularly, on a monthly basis, met with Indiana's Medicare carrier and have discussed global problems that physicians are experiencing. We have had some successes in clarifying and adjudicating some of the glitches that have resulted from unclear and imprecise regulations coming from the federal government. This process has been tedious and time-consuming, but it should be continued.

Over the past two years, your association has been re-evaluating its mission and organization. A consultant was engaged, and your board of trustees has participated in two weekend retreats focusing on management principles. The leadership of the association and focus groups of the membership have been interviewed. A situational analysis evolved from all of this and was followed by a strategic plan.

What do we find? The general mood is one of apathy, not only among physicians, but also among their staffs. We see ourselves in disarray and as being manipulated. The trendsetters and power wielders are correctly perceived as insurance companies, government and business. Physicians see litigation as the stimulus for the need of a statewide professional organization. Physicians see a need and a use for a state organization that can help in management skills, communications and finances.

There needs to be a continuum of leadership that can do these

things and repackage and resell membership services. As leaders, we have to help our member-physicians manage themselves, their staffs and their patients. The ultimate needs of physicians are security, an ability to grow, recognition and public approval. Our state association, then, is in need of a unifying theme and our solutions can be seen best in reorganization and in a remodeling of function.

To this end, the executive director and the president have written position charters. These charters define areas of control, function and responsibility and also set forth goals and the measurement

of progress towards these goals. The House of Delegates will be asked to debate and act on resolutions that will define a strategic plan and will initiate organizational changes in our PAC and the way we amend our bylaws. It is a very humble start, but I believe that it is the beginning that will permit us to effectively manage the problems of organized medicine in the future. These are changing times. It is time for a change.

In closing, I believe we have managed well to date. The future challenges will be different, more difficult and will require a more streamlined organization to deal

with them. Your new president is dependable, capable and prepared to lead. Give him your support. Remember him in your prayers.

To our membership, I would ask that you remain active, dedicated, informed and compassionate. To our physician leaders, I would suggest that you support and encourage your peers. Don't abuse our association staff and don't overwork your executive director.

Making these changes, accepting the challenges that are at hand and paying attention to these admonitions, you will be busy yet successful in whatever you choose to do. □

Address of the president-elect, George Rawls, M.D.

Mr. Speaker, Mr. President, officers, delegates and friends of the Indiana State Medical Association, being elected the 140th President of this august body is the single, most outstanding honor that I have achieved. Little did I envision when I set foot on Hoosier soil 30 years ago, knowing no one, that this position of honor and esteem would devolve upon me. I accept the challenge with gratitude and pride and a deep sense of humility. I have had the opportunity to work with our President, Dr. Fred Dahling. He has traveled the length and breadth of our state, visiting all 92 counties, by car, as our emissary. More often than not, at his side was his beloved wife, Sue. We are indeed indebted to him for his dedication, his leadership and his vision. His deeds and accomplishments give but a mere hint of

his loyalty and commitment. In fact, I feel like Jefferson, who when he was appointed Ambassador to France, indicated "I am merely following Benjamin Franklin, for I and no one else could ever succeed him." I am following the likes of Dahling, MacDougall, Shirley Khalouf and others who have so brilliantly gone before.

Once, again, I should like to thank you, the members of the House of Delegates, for the confidence you have expressed in me. You are the wheels of action in this organization. I look forward with enthusiasm and in anticipation of working with you, the House, the board of trustees, Rick King and the staff in carrying out your mandates which you will enunciate here.

The history of the physician is a noble one. Initially there was Imhotep, the first great physician

of record who was physician to King Zoser of the third Egyptian dynasty. He lived about 3000 B.C. and possessed many talents. In addition to being a great physician, he was the architect of the step pyramid and was an astronomer. He taught contentment and cheerfulness. The well-known adage, "Eat, drink and be merry for tomorrow we die," is attributed to him.

Down through the ages we had Hippocrates – the great Greek physician whose oath we recite and which ends "May it be granted me to enjoy life and the practice of the art, respected by all men, in all times. But should I trespass and violate this oath, may the reverse be my lot."

Then came Galen, Avicenna (The Canon of Medicine), Paracelsus ("the stormy petrel of medicine"), Vesalius (anatomist), Osler and others you know so

well. They all possessed the attributes of the old Chinese proverb: "A doctor's character should be square, his knowledge round, his gallbladder large (a sign of bravery) and his heart small (a sign of carefulness)."

Two years after the American Medical Association was organized in 1847, the Indiana State Medical Association was formed in 1849. It has had an illustrious cadre of leaders and has served the physicians and the citizens of this great state well.

As we approach the coming year, problems, some of which worried those early leaders, still abound. We must remember the words of an old sage who said, "In times like these, it helps to remember that there have always been times like these." We accept the challenges of these times.

One of the most urgent problems is the need for basic health coverage for the uninsured. There are an estimated 35 million uninsured or underinsured people in our country. Nine-hundred sixty thousand of these are located in Indiana. I am asking, by resolution, that the ISMA support and encourage the adjustment of Medicaid eligibility to those citizens whose incomes fall below the 175% of the established poverty level. It is imperative that every citizen have access to good medical care.

Many of these patients are elderly; and, therefore, I ask, by resolution that the ISMA encourage its membership statewide to accept Medicare patients and to accept assignment of payment for benefits under Medicare for those patients whose incomes fall below one and one-half the defined poverty level, and means testing sug-

gests that they are in need of assistance.

In addition, there is a group of students who are financially unable to seek or who elect not to seek basic health care. I am requesting that ISMA support the basic concept of school health clinics in those communities where it is appropriate and needed.

On the other hand, it should not be forgotten that in the state of Indiana there are numerous physicians who provide free care or care at a reduced price to indigent patients. Resolved, that the ISMA determine the feasibility of obtaining the services of an experienced, independent organization to measure the free care provided by physicians to indigent patients and to make this information available to the public.

Another poignant problem is that of infant mortality. Indianapolis has the highest rate among blacks of any metropolitan area in the country. We must take the lead in diminishing this problem. We support the concepts of early and adequate prenatal care, good nutrition, the abstinence of drugs, alcohol and tobacco during the prenatal period. However, prevention of pregnancy among teenagers, especially among blacks, is one of the most effective cures for this tragedy. Resolved, therefore, that the ISMA support this concept by making a financial contribution to a social agency whose programs and expertise would allow for education of minority youth in self-esteem, goal setting and pregnancy prevention (for example, the Indianapolis Urban League or Lilly Center for Health Education.) Our Auxiliary is also at work to correct this problem

through the support of WIC and other programs.

The increasing cost of medical care is the cause of many proposals such as the RBRVS with expenditure targets or absence of balance billing or making the provider reimbursement of Medicaid in Indiana the same as that of Medicare. Both are low and while the cost of medical care absorbs 11.59% of the GNP, contrary to popular belief, it is not the physicians' fault. If the American people would heed our advice and procure a smoke-free society by the turn of the century; if the American people would buckle up when riding in motor vehicles; if the American people would wear helmets when riding motorcycles; if the American people would exercise, eat properly and maintain a normal weight; if the American people would, instead of buying roses, obtain a mammogram for their mothers on Mother's Day as advocated last year by our state commissioner of health and the governor's wife, the American Cancer Society and at least 10 medical societies; if the American people would heed our advice about AIDS with safe sex and elimination of the drug problem; if the American people would adhere to these proposals, the cost could be cut in half. For we know and keep preaching, to no avail, that Americans spend more than \$35 billion annually on tobacco products and much more on its effects – emphysema, cancer of the lung and coronary heart disease. Americans spend over \$60 billion annually on alcohol and untold billions on its effects vis-a-vis automobile accidents, illness and disability.

And yet, the high cost is blamed

on the physician, despite his mounting malpractice premiums, despite his need to practice defensive medicine. Despite this, there is admittedly waste. The health care providers have a better insight into how to eliminate waste and what services should be maintained; therefore, resolved, that ISMA monitor the activities of the Commission on State Health Policy and if deemed inadequate, call a summit meeting inviting representatives of the Indiana Nursing Association, the Indiana Hospital Association, major health insurance companies, management, labor, AARP and other appropriate representatives to seek effective ways to decrease waste in spending and yet maintain quality.

We offer no apology for charging an equitable fee for our services. As Disraeli said millenniums ago, "The health of the people is really the foundation upon which all their happiness and their powers as a state depend." As an aside, Americans spent \$93.9 billion for physicians' services in 1987. But alas! They spent \$223 billion for recreation and \$160 billion on hard drugs. While we offer no apology for charging an equitable fee for our services, we just as vigorously abhor and oppose those few of us who do unnecessary procedures, give unnecessary shots, who have patients return too often, and who do unnecessary laboratory work. We have offered our assistance in this regard through insurance review committees and professional standard committees. We have been constrained from doing so for supposedly restraint of trade, or setting of fees or restricting competition. We feel, nevertheless,

that a physician, not a clerk or a paramedic or any other lay person, is the only one who can competently evaluate the activity and charges of another physician. Parenthetically, we did this job for minimal compensation. We wait patiently in the wings to do so again if permitted. We hereby offer our assistance.

The number of qualified Indiana students who seek admission to Indiana University has declined in the past several years. If this trend continues, the quality of medical education and medical practice will diminish. Resolved, therefore that the ISMA, in cooperation with the Indiana University School of Medicine and with other organizations develop and encourage the establishment of medical explorer scout programs in high schools and universities throughout the state.

Another area of concern is that of the medical licensing board, which has an obligation to protect the citizens of the state of Indiana through enforcement of its regulations and laws of the state. From 1983 to 1986 there were 145 cases of reprimands, suspensions, voluntary surrenders or revocation of licenses. In 1988 there were 44 cases. Many physicians who practice good medicine are unaware of the causes for action and the potential impact of an adverse action on their careers; therefore, resolved that the ISMA request a representative of the Health Professions Service Bureau write a series of articles to be published in *INDIANA MEDICINE* regarding the rules governing medical practice and describing the most common causes of action against physicians' licenses.

As suggested by our consultant,

Frank Edwards, I will make every effort to continue the ongoing, long-range plans of the ISMA – expand membership in the ISMA and the AMA; seek membership in IMPAC, AMPAC and PICI; support the Commission on Physician Assistance and the objectives of all other commissions and committees of the ISMA.

I will work closely with the auxiliary and its current president, Mrs. Lura Stone. Our spouses are an immense source of love, caring, knowledge and know-how. We must encourage them and support their efforts to help us in the legislature, in public relations and in all their activities. Ask your spouse today if he or she is a member and if he or she is active. We seek and need 100% involvement.

There are 15 living past presidents. I know almost all of them personally. Each one has been a source of inspiration, encouragement and knowledge to me personally. Each one has acquired important contacts and know-how by virtue of many years of dedicated service. Therefore, resolved that ISMA form a Council of Past Presidents to advise the president, officers and the board as requested. We need to have available the expertise of our past presidents.

In closing, I would like to request each physician in the state of Indiana to spend at least two or three minutes more each day with each patient or with his or her relatives. This time is to be used exclusively for listening to them, answering their questions and relieving their apprehensions. The art and soul of medicine transcend technology. Let us remember we must be resolute in our

purpose, and we must not abdicate our responsibility. We must resolve that our patient/doctor relationship remain inviolable and

that our patients always receive the best medical care available irrespective of their ability to pay and irrespective of the cost. We

must always remember that this is our mission. This is our task. This is our *raison d'être*! □

Address of the ISMA Auxiliary president, Lura Stone

My goal today is threefold: 1) to challenge all of us to work together to ensure better health for our younger generations; 2) to bring you up to date on auxiliary activities; and 3) to prepare you for the new look coming to auxiliary.

A few years ago, my husband started to cut some simple shapes from wood. He felt a great satisfaction from creating interesting objects from scrap boards. He added some paint; I added some eyes, and suddenly, the teddy bears took on personalities of their own. What originally was his project became our project. We had teamed up to complete some small but interesting toys. The end results were only part of the benefits: We had carefully discussed how to add the finishing touches to make each item special, and we had each contributed in our own way. Working together we had created some toys that neither one of us could have made as well on our own.

One of the great pleasures of being president of the ISMA auxiliary is that of getting acquainted with your spouses. You chose well: They are intelligent, well-educated, effective communicators, who are informed, involved and aware of what is going on. They are also multi-talented, energetic and possess managerial skills that are to be envied. Imagination and coordination is

all we lack in bringing this almost untapped resource together with the skills and knowledge that you physicians possess to make a positive difference in the lives of people around us.

Many of you share our concern for the adolescent health problems caused by lifestyle choices. At the AMA Auxiliary Leadership Conference held in September there was a presentation on comprehensive school health education. The kindergarten through sixth grade program is called, "Growing Healthy." Thirty-five of Indiana's school corporations have adopted this program. Our local corporation is one of the 35.

Students and teachers are excited about studying health as they investigate together the amazing body that each of us has to live in and take care of. The children are helped to develop self-esteem and respect for their bodies in a program that creates, designs and reinforces behavior that fosters healthy choices. They work on effective decision-making skills. Parental input is encouraged. Look into this program. Find out if it is already part of your local school curriculum. See if you agree with many educators and health professionals who think that a comprehensive program for the health curriculum is just as important for our students as the math or reading curriculum. The Indiana State Board of Health and the Indiana Depart-

ment of Education already acknowledge "Growing Healthy" as a reputable comprehensive school health education program. If the ISMA membership and the ISMA auxiliary could work together to encourage school corporations to implement a comprehensive school health curriculum, I think we could make a very positive difference on the statistics reported in the future concerning teen pregnancy, drug, alcohol and tobacco abuse, sexually transmitted diseases, eating disorders, AIDS/HIV, suicide and other untimely deaths.

What do you think could be accomplished if the ISMA, the ISMA staff and the auxiliary pooled their talents and began to work closer together? Please support Resolution 89-8, which includes the county auxiliary president on the county medical society board.

Now let's talk about what the auxiliary is doing. The stress and relaxation seminar scheduled for September had to be cancelled. There were too many other activities going on then. On Oct. 11, we held a legislation seminar in Plymouth. Included on the program were Dr. Ed Langston, ISMA member; Mike Abrams, ISMA staff; Rep. Donald Nelson, and several auxiliary members, including Ann Wrenn, member of the AMA-A legislation committee. State and national concerns were addressed. Everyone attending

learned something from the skillful presenters. On Feb. 15, the auxiliary will host our traditional day at the capitol. Again we will enlist the ISMA staff, some ISMA members and auxiliary leaders to develop the program. Legislators will join us for lunch.

In closing, let us look into 1990 to an historical event that will take place on April 28 at the ISMA auxiliary's annual convention. We will install Mr. Charles Rodney Ashley as president of the ISMA auxiliary. He is the husband of Susan Rogers, M.D., of

Marion.

Rod has had several careers, including that of house husband. He is now involved in a land development and building project. We are fortunate that he is sharing his time, energy and talents with us. He brings a perspective auxiliary that is different, that will lead us out of a totally female perspective into a human perspective. You are invited to join us at Amish Acres in Nappanee for this event. Rod will be the first man to be installed president of a state medical auxiliary. Be prepared to

be addressed by a man at this meeting next year.

In conclusion: We had an informative legislation seminar Oct. 11. We plan a day at the capitol for Feb. 15. Male spouses are not only becoming active, but are taking leadership roles in our organization. My challenge to you, should you accept it, is: to work together for a comprehensive school health curriculum in every school corporation in Indiana that could decrease the unnecessary deaths and adolescent health problems. □

Medical Student Society annual report, Chuck Swanson, ISMA-MSS president

It has been my privilege and pleasure to serve the medical students of Indiana and the Indiana State Medical Association as president of the ISMA-MSS this year.

The Medical Student Society has grown tremendously this year and now has nine delegates to the national AMA-MSS House of Delegates (HOD). The ISMA-MSS is the largest single school delegation in the AMA-MSS and the second largest state delegation in the AMA-MSS. The size of our delegation is not only a source of pride for Indiana medical students but an excellent opportunity to be heard by the AMA. We look forward to our increased national presence and will strive to represent the ISMA to the best of our abilities.

One example of our increased national presence is the preparation of a resolution for consideration at the AMA-MSS I-89 meeting. This resolution proposes the

institution of a national screening program for neuroblastoma in newborns. It is a well-written, thoroughly researched resolution written by Kim Hankins, a fourth year medical student. After passage by the AMA-MSS, the resolution will be presented to the AMA HOD at A-90.

Another example is our increased participation at national meetings. Twenty-four student members attended A-89 in Chicago, and 26 student members attended I-89 in Hawaii.

Representation also has increased at the state level. At the ISMA 1989 Annual Meeting, the ISMA HOD acted to increase the number of student society delegates to a total of four. This vote of confidence by the ISMA will not only increase our active membership but will increase the number of future active members of the ISMA. The Medical Student Society eagerly anticipates our broadened role in working with

the ISMA.

Phil Dulburger, a fourth year medical student and immediate past student member of the ISMA Board of Trustees, has participated in several state events. He has been an active participant at board meetings and has assisted with a medical student questionnaire to study the reasons for declining medical school enrollment. The Medical Student Society extends sincere thanks to Phil for his hard work. Todd Rumsey, a third year student, was recently elected student trustee to the ISMA Board of Trustees at its annual meeting in October.

Patricia Keener, M.D., spoke at the Medical Student Society's state meeting in October. Dr. Keener gave an informative and timely update on infant mortality in Indiana. We are grateful to her for her lecture.

Currently, the ISMA-MSS is engaged in several projects of community interest. In coopera-

tion with the Marion County Medical Society, we participated in a tuberculosis screening program for the indigent in Indianapolis in November. We also are continuing our Student-to-Student education programs. These programs allow medical students to talk with junior and senior high school students about the dangers of drug, alcohol and tobacco

abuse and the AIDS epidemic. The number of schools participating in these programs is increasing, and we have received a warm reception in the schools.

The Medical Student Society of the Indiana State Medical Association is a healthy, vibrant, growing organization. We appreciate the support of and encouragement from physicians throughout the

state. I would like to thank the ISMA; Allen, Lawrence, Marion, Vanderburgh and Wayne-Union County Medical societies; and the 13th District Medical Society for their 1989 financial support. Finally, I would like to thank all of the governing council members and other medical students for their hard work this year. □

Scientific exhibit winners

First place

"Effects of platelet-activating factor on vascular permeability and granulocyte infiltration in the rat trachea."

Exhibitors: D.M. Prow, J.J. Brokaw, C.M. Kirsch, G.W. White, Evansville Center for Medical Education, Indiana University School of Medicine.

Platelet-activating factor (PAF) is a membrane-derived inflammatory mediator implicated in the pathogenesis of asthma. Under experimental conditions, PAF produces pulmonary edema and recruits granulocytes into the airways of several species. We sought to characterize the effects of PAF on vascular permeability and granulocyte infiltration in the rat trachea.

To assess tracheal vascular permeability, female Long-Evans rats were anesthetized with sodium methohexital (75 mg/kg, ip) and given injections of Evans blue dye (30 mg/kg, iv) and PAF ($\mu\text{g/kg}$, iv). Afterward, the rats were perfused with fixative, and the tracheas removed. The amount of dye in the tracheas was then assayed with a spectrophotometer.

To determine the onset and duration of the PAF-induced increase in tracheal vascular permeability, the intervals between dye injection, PAF injection and fixative perfusion were varied systematically over the range zero to 15 minutes. We found that the tracheal dye content was half-maximal in 1.7 minutes and maximal in five minutes. The dye extravasation had a half-life of 1.1 minutes and had returned to baseline by 15 minutes.

To determine the ability of PAF to recruit granulocytes into the trachea, rats were anesthetized, given an injection of PAF (6 $\mu\text{g/kg}$, iv) and then perfused with fixative at intervals ranging from zero to 24 hours later. Neutrophils and eosinophils, which contain myeloperoxidase, were counted in tracheal whole-mounts stained specifically for this enzyme.

We found that the density of neutrophils in the tracheal mucosa was increased eightfold from controls five minutes after the PAF infection but was not significantly increased at later time-points. The density of eosinophils in the tracheal mucosa was not signifi-

cantly increased from controls at any time-point.

We conclude that the PAF-induced increase in vascular permeability in the rat trachea has a rapid onset and a short duration, and that PAF causes a transient infiltration of neutrophils into the trachea but has no such effect on eosinophil infiltration. □

Second place

"Glipizide does not inhibit transglutaminase-induced cross-linking of human red blood cell ($\text{Ca}^{2+} + \text{Mg}^{2+}$)-ATPase."

Exhibitors: G.S. Redding, D.M. Record, B.U. Raess, Evansville Center for Medical Education, Indiana University School of Medicine.

Hypoglycemic sulfonylureas may increase insulin binding to target tissues by inhibiting transglutaminase-mediated endocytosis of insulin receptors. Also, transglutaminase catalyzes cross-linking of intracellular proteins that may lead to inhibition of ATPase activity.

This study examined the effects of glipizide on functional consequences of transglutaminase in

the human erythrocyte by assessing the $(\text{Na}^+ + \text{K}^+)\text{-ATPase}$ and $(\text{Ca}^{2+} + \text{Mg}^{2+})\text{-ATPase}$ activities and by measuring high molecular weight cross-linked protein polymers on SDS-PAGE. For this, erythrocytes were exposed to high levels of intracellular calcium using 10^{-5} M ionophore A231871 to activate transglutaminase. In calcium loaded cells, calmodulin-stimulated $(\text{Ca}^{2+} + \text{Mg}^{2+})\text{-ATPase}$ was decreased, and transglutaminase-induced high molecular weight polymers were found.

However, cells exposed to high calcium and glipizide (3×10^{-5} M to 10^{-3} M) showed no improvement in any ATPase activities compared to cells without the drug. Furthermore, electrophoretic analysis of the same membranes showed no protection from protein cross-linking by glipizide. We conclude that under these conditions, glipizide does not inhibit the functional consequences of transglutaminase as

measured by protein polymer formation and ATPase activities in human erythrocytes. □

Third place

"Vasopressin mRNA expression in salt-induced hypertension: An in situ hybridization approach."

Exhibitor: Deanne Lazer, Indiana University School of Medicine.

Salt can induce hypertension, yet the exact mechanism remains unknown. This study was designed to explore whether vasopressin messenger ribonucleic acid (VP mRNA) in the hypothalamus is linked to high blood pressure.

Vasopressin mRNA in Dahl's salt-sensitive (SS) and salt-resistant (SR) rats was studied with in situ hybridization using 35-S vasopressin oligonucleotide probe and quantified from the film autoradiographs using a computer-assisted densitometer system.

Salt-sensitive rats developed

hypertension. A strong correlation exists between increased VP mRNA in the paraventricular hypothalamic nucleus (PVN) and elevated blood pressure in SS rats, but not in SR rats. In contrast, VP mRNA of the supraoptic nucleus (SON) is amplified in both SS and SR rats fed with a high-salt diet. However, increased VP mRNA in the SON of SR rats does not correlate with its resistance of blood pressure elevation solicited by the high-salt diet. The receptor binding study revealed a high density of angiotensin II (AII) receptors in the PVN. Collectively, an enhanced AII receptor binding in the PVN is concomitant with an increased expression of VP mRNA in SS rats, but not in SR rats.

In conclusion, this study supports the hypothesis that vasopressin mRNA gene expression modulated by angiotensin II plays a key role in salt-induced hypertension. □

■ resolutions

RESOLUTION 89-1 Reduction in blood alcohol levels in definition of driving drunk

Introduced by: Third District Medical Society
 Referred to: Reference Committee 3
 ACTION: Adopted as amended

Whereas, Physicians of the ISMA are concerned about the safety on our highways, and the acceptable blood alcohol level in Indiana is 0.10; and

Whereas, Many alcohol experts believe the level at which one becomes impaired is 0.05, and the AMA endorses 0.08; and

Whereas, Maine, Oregon and Utah have already lowered the acceptable blood alcohol level to 0.08 (California, Illinois, Minnesota, North Carolina and Rhode Island have introduced legislation to reduce acceptable levels to 0.08 and Michigan is attempting to reduce the level to 0.04 for commercial drivers); therefore be it

RESOLVED, That the Indiana State Medical Association introduce and support legislation that would lower the blood alcohol level in Indiana so that 0.08% blood alcohol level constitutes prima facie evidence of intoxication.

RESOLUTION 89-2 Alternate trustee privilege to speak on the floor of the House of Delegates

Introduced by: Commission on Constitution and Bylaws
 Referred to: Reference Committee 2
 ACTION: Adopted

Whereas Section 3.0201 of the ISMA Bylaws provides that "Only members of the House of Delegates are entitled to speak on the floor of the House..." and

Whereas, Alternate Trustees do not have a vote in the House nor are they entitled to speak on the floor of the House unless the Trustee is absent; therefore be it

RESOLVED, That the second paragraph of Section 3.0201 be amended as follows:

"Only members of the House of Delegates, and Alternate Trustees, are entitled to speak on the floor of the House..."

RESOLUTION 89-3 Medical student representatives on the Board of Trustees (Amendment to Constitution, Article VII)

Introduced by: Commission on Constitution and Bylaws
 Referred to: Reference Committee 2
 ACTION: Adopted

Whereas, Resolution 88-17, "Medical Student Society Representatives on the ISMA Board of Trustees," approved by the 1988 House of Delegates, resulted in Bylaws amendments to Section 1.0104, Section 5.01(3), Section 5.0406, Section 5.0407 and Section 12.0402; therefore be it

RESOLVED, That the ISMA Constitution, Article VII, Board of Trustees, be amended with the following addition (underlined):

"The Board of Trustees is composed of Trustees and Alternate Trustees (elected by the component district medical societies, the Resident Medical Society, and the Medical Student Society), the President, President-elect, Immediate Past President, Treasurer, Assistant Treasurer, Speaker, Vice Speaker and the Executive Director..."

RESOLUTION 89-4 Opposition to mandatory coding

Introduced by: Clark County and Third District
 Referred to: Reference Committee 3
 ACTION: Adopted as amended

Whereas, Medicare regulations are becoming more and more onerous to all physicians and particularly to those who do not take assignment 100% of the time; and

Whereas, The latest regulation to become effective April 1, 1989, mandates that the physician code all office visits according to ICD codes in addition to a written diagnosis; and

Whereas, There will be civil penalties and sanctions invoked, as well as payment withheld if one fails to provide the proper code; and

Whereas, Looking up individual codes will require an inordinate amount of time, encouraging physicians to lump all visits under a few well-known codes regardless of the reason for the visit; and

Whereas, A set of numbers has nothing to do with the quality of care and is simply a convenience to the intermediaries; and

Whereas, As intermediaries may use this coding as an excuse to intrude even further into the practice of medicine; therefore be it

RESOLVED, That the Indiana State Medical Association and the American Medical Association combat severe sanctions and harsh and unreasonable penalties that are leveled because of errors in the coding process.

RESOLUTION 89-5A Media Key Contact person
 Introduced by: Ninth District, Timothy N. Brown, president
 Referred to: Reference Committee 4
 ACTION: Adopted substitute Resolution 89-5A

RESOLVED, That the Indiana State Medical Association utilize existing facilities and resources within ISMA in regard to media contacts and public relations.

RESOLUTION 89-6A Label on prescription drugs
 Introduced by: Richard A. Schaphorst, M.D., and supported by St. Joseph County Medical Society
 Referred to: Reference Committee 3
 ACTION: Adopted substitute Resolution 89-6A as amended, in lieu of Resolutions 89-6, 89-26, 89-41 and 89-56

RESOLVED, That the Indiana State Medical Association take necessary steps to introduce in the General Assembly of Indiana, legislation that would require all prescription drug labels to include the generic name and expiration date.

RESOLUTION 89-7A Program funding for the Commission on Physician Assistance
 Introduced by: Commission on Physician Assistance
 Referred to: Reference Committee 1
 ACTION: Adopted substitute Resolution 89-7A as amended

RESOLVED, That the ISMA continue to finance the Commission on Physician Assistance for the next fiscal year; and be it further

RESOLVED, That a voluntary donation (to the tax-exempt arm of ISMA) of \$25 per member be instituted to fund the Commission on Physician Assistance for the next three years; and be it further

RESOLVED, That a task force be appointed to procure final funding of the program for the Commission on Physician Assistance to support appropriate staff with an estimated annual fiscal note of \$350,000.

RESOLUTION 89-8 Auxiliary representation on county and state governing boards
 Introduced by: Fort Wayne Medical Society
 Referred to: Reference Committee 2
 ACTION: Adopted as amended

Whereas, Medical Auxiliaries were created to be helpmates to the medical societies; and

Whereas, The Auxiliaries share the same goals and objectives as that of the medical societies, which foster excellence in patient care; and

Whereas, The Auxiliaries strive to promote the policies of the medical societies through their programs, and there is a need for the Auxiliaries and the medical societies to have direct communication of those policies and programs of importance; and

Whereas, The most efficient instrument for such communication is through a society governing board; therefore be it

RESOLVED, That all county governing boards as well as the ISMA Board of Trustees be encouraged to include Auxiliary representation, preferably by an Auxiliary president.

RESOLUTION 89-9 Attorney fees in medical malpractice cases
 Introduced by: William H. Mohr, M.D., with support of the Howard County Medical Society
 Referred to: Reference Committee 3
 ACTION: Not adopted

BE IT RESOLVED, That the Indiana State Medical Association seek legislation which would limit attorney fees in medical malpractice cases as follows:

- a) 33 1/3% of the first \$100,000;
- b) 15% of the next \$400,000, payable from the Patients Compensation Fund; and
- c) 0% on the next \$250,000 from the Patients Compensation Fund.

■ resolutions

RESOLUTION 89-10 **Changes to the ISMA-HMSS Model Medical Staff Bylaws**

Introduced by: ISMA Hospital Medical Staff Section

Referred to: Reference Committee 1

ACTION: Adopted

Whereas, The passage of the federal Health Care Quality Improvement Act has set forth various immunities to participants involved in peer review activities; and

Whereas, In order to obtain the federal immunities provided for in the Act, certain procedural requirements must be set forth in the Medical Staff Bylaws; and

Whereas, It is the desire of the ISMA-HMSS to continually update the original ISMA-HMSS Model Medical Staff Bylaws to comply with changes in the law; therefore be it

RESOLVED, That the following changes to the ISMA-HMSS Model Medical Staff Bylaws be approved:

6.2 Summary restriction or suspension

6.2-1 Criteria for initiation

Whenever a member's conduct appears to require that immediate action be taken to protect the life or well being of patient(s) or to reduce a substantial and imminent likelihood of significant impairment of the life, health or safety of any patient, prospective patient or other person, then any two (2) of the following (the chief of the medical staff, the president of the medical executive committee, or the head of the department or his designee in which the member holds privileges) may summarily restrict or suspend the staff clinical privileges of such member for up to 14 days during which time an investigation is being conducted. Unless otherwise stated, such summary restriction or suspension shall become effective immediately upon imposition, and the person or body responsible shall promptly give written notice to the member, the board of (trustees/directors), the medical executive committee and the administrator. The summary restriction or suspension may be limited in duration and shall remain in effect for the period stated or, if none, until resolved as set forth herein. Unless otherwise indicated by the terms of the summary restriction or suspension, the member's patients

shall be promptly assigned to another member by the department chairman or by the chief of staff, considering where feasible, the wishes of the patient in the choice of a substitute member.

6.2-2 Medical Executive Committee

As soon as practical (within ~~[15]~~ 14 calendar days) after such summary restriction or suspension has been imposed, a meeting of the medical executive committee shall be convened to review and consider the action. Upon request, the member may attend and make a statement concerning the issues under investigation, on such terms and conditions as the medical executive committee may impose, although in no event shall any meeting of the medical executive committee, with or without the member, constitute a "hearing" within the meaning of Article VII, nor shall any procedural rules apply. The member's failure without good cause to attend any medical executive committee meeting upon request shall constitute a waiver of his rights under Article VII. The medical executive committee may modify, continue or terminate the summary restriction or suspension, but in any event it shall furnish the member with notice of its decision.

7.3-5 Judicial Review Committee

When a hearing is requested, the medical executive committee, acting on behalf of the hospital, shall appoint a judicial review committee which shall be composed of not less than three (3) members of the medical staff, who shall not be in direct economic competition with the physician involved, unless the affected practitioner approves in writing of such individual, and who shall not have actively participated in the consideration of the matter ...

7.4-3 The hearing officer

The medical executive committee, acting on behalf of the hospital, shall appoint a hearing officer, not a member of the judicial review committee, to preside at the hearing. The hearing officer shall not be in direct economic competition with the member. The hearing officer ...

7.4-5 Rights of the parties (entire new section)

Both the member and the medical executive committee have the right:

- a) to be represented at any phase of the hearing or preliminary procedures by an attorney at law or by any other person of that party's choice;
- b) to have a record made of the proceedings, copies of which may be obtained by the member upon payment of any reasonable charges associated with the preparation thereof;
- c) to call, examine, cross-examine and impeach witnesses, and the medical executive committee may call the member as if under cross-examination;
- d) to present evidence determined to be relevant by the hearing officer, regardless of its admissibility in a court of law; and
- e) to submit a written statement at the close of the hearing.

RESOLUTION 89-11 Insurance for diagnosis and treatment of infertility

Introduced by: John C. Jarrett, II, M.D., Indianapolis
 Referred to: Reference Committee 4
 ACTION: Not adopted

Whereas, Infertility is a human disease state of the reproductive system; and

Whereas, Infertility affects as many as one out of every five American couples; and

Whereas, Infertility is singularly excluded from insurance coverage by many insurance carriers; therefore be it

RESOLVED, That the Indiana State Medical Association supports legislative efforts to require insurance plans providing benefits related to pregnancy to also provide benefits or coverage for the diagnosis and treatment of infertility.

RESOLUTION 89-12 Amendments to the Indiana Medical Political Action Committee rules and regulations

Introduced by: Board of Trustees
 Referred to: Reference Committee 1
 ACTION: Not adopted

Whereas, The IMPAC Board of Directors is composed of two members (a physician and a spouse) from each of the 13 ISMA medical districts; and

Whereas, The IMPAC Board's purpose is political in nature; and

Whereas, The spouse membership in IMPAC is approximately 3% of the total; be it therefore

RESOLVED, That the IMPAC rules and regulations be amended under

Article IV - The Board of Directors, Section (B) to read:

"The IMPAC Board of Directors shall be composed of one physician from each of Indiana's ten (10) congressional districts, three (3) ISMA Auxiliaries and the following ex-officio (non-voting) members: the ISMA President, ISMA Executive Director and a resident physician."

RESOLUTION 89-13 Additional funding for graduate medical education

Introduced by: Commission on Medical Education
 Referred to: Reference Committee 3
 ACTION: Adopted

Whereas, Residents contribute to the high quality of patient care for all of the citizens of Indiana, directly and indirectly; and

Whereas, The high educational standards in graduate medical education which have existed in the State of Indiana require a sound financial base; and

Whereas, Currently in the United States, approximately 80% of the cost of the resident stipend and benefits come from patient revenue; and

Whereas, Most of the remaining support for stipend and benefits is derived from state and municipal appropriations; and

Whereas, There has been essentially no increase in financial support by the State for graduate medical education for over 10 years; and

Whereas, The Indiana General Assembly for 1989-90 changed the appropriations for graduate medical education in Family Practice to \$1.2 million and for

■ resolutions

graduate medical education in all other residencies to \$1 million and for 1990-91 maintained the support for Family Practice residencies at \$1.3 million and cut out completely the support for all other residencies (\$1 million); and

Whereas, A decrease in the State funding will jeopardize medical education as well as the health care in the State of Indiana; therefore be it

RESOLVED, That the Indiana State Medical Association support the concept and help seek additional funding for graduate medical education from the Indiana General Assembly.

RESOLUTION 89-14 ISMA strategic plan
Introduced by: C. Dyke Egnatz, M.D.,
Speaker of the House
Referred to: Reference Committee 1
ACTION: Adopted as amended

Whereas, The ongoing function of the officers and Board of Trustees is to continue assessment and revision of the objectives of our Association; and

Whereas, The deadline for annual convention resolutions is necessary and practical for the printing and distribution of resolutions and the convention agenda; and

Whereas, The Board meeting, August 12-13, 1989, has complied with that goal of developing key objectives; be it therefore

RESOLVED, That the draft of the ISMA strategic plan and long-term objectives be received with commendation; and be it further

RESOLVED, That the plan be referred to the Board of Trustees for implementation and continual updating.

RESOLUTION 89-15 State delegate position
Introduced by: Medical Student Society
Referred to: Reference Committee 2
ACTION: Adopted

Whereas, The Medical Student Section of the AMA in Indiana has grown in membership and involvement in the last two years; and

Whereas, The Indiana student delegation is the second largest state delegation in the country; and

Whereas, The Indiana student delegation is the largest school delegation in the nation; and

Whereas, The members of the AMA-MSS and ISMA-MSS would like to become more involved both

locally and nationally; therefore be it

RESOLVED, That the ISMA grant the ISMA-MSS an additional three (3) delegates to the ISMA for a total of four (4) delegates, these delegates being determined by democratic vote among the members of the ISMA-MSS.

RESOLUTION 89-16 Board of Trustee position – student vote
Introduced by: Medical Student Society
Referred to: Reference Committee 2
ACTION: Not adopted

Whereas, The Medical Student Section of the AMA in Indiana has grown in membership and involvement in the last two years; and

Whereas, The Indiana student delegation is the second largest state delegation in the country; and

Whereas, The Indiana student delegation is the largest school delegation in the nation; and

Whereas, The members of the ISMA-MSS would like to become more involved on a state and national level; therefore be it

RESOLVED, That the ISMA grant the Medical Student Society's Board of Trustee position a vote in the ISMA meetings.

RESOLUTION 89-17 Medicare response guidelines
Introduced by: Tim N. Brown, M.D., president
Montgomery County Medical Society
Referred to: Reference Committee 3
ACTION: Adopted

Whereas, Health care providers are required by the Medicare carrier to respond to the carrier's inquiries within a specific number of days; and

Whereas, Delays in responses by the Medicare carrier to provider inquiries increase the cost of health care; and

Whereas, A Congressional inquiry to the Medicare carrier requires a response within 30 days, and any constituent may ask his/her Congressman for a Congressional inquiry to the carrier; therefore be it

RESOLVED, That the Indiana State Medical Association (by negotiation, lobbying or legislation) require that ISMA inquiries of the Medicare carrier be given the same priority as a Congressional inquiry.

RESOLUTION 89-18 Drug-Free Indiana
 Introduced by: Fred W. Dahling, M.D., New Haven
 Referred to: Reference Committee 4
 ACTION: Adopted

Whereas, Drug consumption, both legal and illegal, is increasing and poses economic, legal and treatment problems; and

Whereas, The citizens of Indiana have an increased awareness of this problem and will demand solutions; and

Whereas, The Governor of Indiana has initiated a program to coordinate efforts to begin solving this enormous problem; therefore be it

RESOLVED, That the Indiana State Medical Association endorse the concept of a Drug-Free Indiana; and be it further

RESOLVED, That the Indiana State Medical Association lend its support and expertise to attain this goal when asked to participate.

RESOLUTION 89-19 Medical career development programs
 Introduced by: George H. Rawls, M.D., Indianapolis
 Referred to: Reference Committee 4
 ACTION: Adopted as amended

Whereas, The number of Indiana students accepted to medical school has decreased in the past several years; and

Whereas, The number of qualified students who seek admission to the Indiana University School of Medicine continues to decline annually; and

Whereas, The continuation of these trends into the future could jeopardize the quality of medical education and subsequent medical practice in Indiana; therefore be it

RESOLVED, That the Indiana State Medical Association, in cooperation with the Indiana University School of Medicine and other organizations, develop and encourage the establishment of Medical Career Development Programs in high schools and universities throughout the State.

RESOLUTION 89-20A Infant mortality prevention
 Introduced by: George H. Rawls, M.D., Indianapolis
 Referred to: Reference Committee 4
 ACTION: Adopted substitute Resolution 89-20A in lieu of Resolutions 89-20 and 89-34

RESOLVED, That ISMA and component societies support, via medical expertise and legislative effort, agencies whose programs would allow for education of Indiana youth in general health issues to include the development of self-esteem, goal-setting, pregnancy prevention and prenatal and postnatal care, and be it further

RESOLVED, That the Indiana State Medical Association and other interested medical groups encourage increased provider participation by reducing the barriers to physicians serving Medicaid-eligible and medically indigent patients.

RESOLUTION 89-21 Indiana Summit on Cost and Quality of Care
 Introduced by: George H. Rawls, M.D., Indianapolis
 Referred to: Reference Committee 4
 ACTION: Adopted as amended

Whereas, The cost of medical care is increasing annually; and

Whereas, The cost of medical care presently absorbs 11.59% of the GNP; and

Whereas, ISMA supports the concept of providing the best quality medical care at the most reasonable cost; and

Whereas, There are millions of dollars spent unnecessarily; and

Whereas, Senate Bill 385 addresses this issue; and

Whereas, Health care providers have a better insight into how to eliminate waste and what services should be maintained; therefore, be it

RESOLVED, That Indiana State Medical Association monitor the activities of the Commission on State Health Policy appointed by the Governor; and be it further

RESOLVED, That ISMA call a summit meeting inviting representatives of the Indiana Nursing Association, the Indiana Hospital Association, major health insurance companies, management, labor, representatives of senior citizen organizations, Indiana University School of Medicine, Indiana Dental Association,

■ resolutions

the I.U. School of Business, the Indiana Osteopathic Association and the Indiana Podiatric Medical Association and members of the Commission on State Health Policy to seek effective ways to decrease waste in spending and maintain quality.

Fiscal note: \$2,500

RESOLUTION 89-22 Causes of action against medical licenses

Introduced by: George H. Rawls, M.D., Indianapolis

Referred to: Reference Committee 1

ACTION: Adopted

Whereas, The Medical Licensing Board has an obligation to protect the citizens of the State of Indiana through enforcement of its regulations and the laws of the State; and

Whereas, During the four years of 1983 to 1986, 145 cases of 149 involving physicians before the Medical Licensing Board resulted in action against physicians' licenses (including emergency suspensions, suspensions, suspensions with probation, probation, reprimand, voluntary surrenders and revocations); and

Whereas, Many physicians are unaware of the causes for action and/or the potential impact of action on a physician's career and patients; therefore be it

RESOLVED, That the Indiana State Medical Association request a representative of the Health Professions Services Bureau (Medical Licensing Board) to write a series of articles to be published in Indiana Medicine and for other appropriate distribution, regarding the rules governing medical practice and describing the most common causes for action against physicians' licenses.

Fiscal note: \$500

RESOLUTION 89-23 Physician volunteer care for indigent patients

Introduced by: George H. Rawls, M.D., Indianapolis

Referred to: Reference Committee 4

ACTION: Referred to the ISMA Board of Trustees

Whereas, It is not commonly known that there are numerous physicians who provide free care to indigent patients; and

Whereas, Attempts to document free care to indigent patients are frustrated by physicians' and pa-

tients' desires for anonymity; and

Whereas, The existence of well-documented, independently developed and confidentiality assured data would benefit medicine through better understanding of the volume of free care provided to Indiana residents; therefore be it

RESOLVED, That the Indiana State Medical Association determine the feasibility of having an experienced, independent organization measure the free care provided by physicians to indigent patients and to make this information available to the public.

Fiscal note: \$25,000

RESOLUTION 89-24 Care for indigent senior patients

Introduced by: George H. Rawls, M.D., Indianapolis

Referred to: Reference Committee 4

ACTION: Adopted as amended

RESOLVED, That the Indiana State Medical Association encourage its membership statewide to provide care for Medicare patients.

RESOLUTION 89-25 Basic health insurance coverage for uninsured

Introduced by: George H. Rawls, M.D., Indianapolis

Referred to: Reference Committee 3

ACTION: Adopted

Whereas, It is estimated that 960,000 Indiana citizens are without the benefit of basic health insurance coverage and are unable to afford even routine care; and

Whereas, An estimated 700,000 of these citizens are disqualified for the benefits of Medicaid based on income above the established poverty levels; now therefore be it

RESOLVED, That the Indiana State Medical Association encourage the adjustment of Medicaid eligibility criteria to include economically compromised citizens whose incomes fall below the 175% of the established poverty level.

RESOLUTION 89-26 **Labeling of prescriptions**
 Introduced by: George H. Rawls, M.D., Indianapolis
 Referred to: Reference Committee 3
 ACTION: Adopted substitute Resolution 89-6A as amended, in lieu of Resolutions 89-6, 89-26, 89-41 and 89-56

RESOLUTION 89-27 **ISMA Past Presidents' Council**
 Introduced by: George H. Rawls, M.D., Indianapolis
 Referred to: Reference Committee 1
 ACTION: Adopted

Whereas, There are a number of living Past Presidents of the Indiana State Medical Association; and
 Whereas, The Past Presidents served the Association well; and
 Whereas, They developed a sound knowledge of the workings of the Association; and
 Whereas, They developed key contacts as a result of their position; therefore be it
 RESOLVED, That the Indiana State Medical Association form a Council of Past Presidents to counsel the President, other officers and Board of Directors of the Indiana State Medical Association, as requested.
 Fiscal note: \$1,500

RESOLUTION 89-28A **School health clinics**
 Introduced by: George H. Rawls, M.D., Indianapolis
 Referred to: Reference Committee 4
 ACTION: Adopted substitute Resolution 89-28A in lieu of Resolutions 89-28 and 89-32

RESOLVED, That the Indiana State Medical Association support quality health care for students and the youth of Indiana; and be it further
 RESOLVED, That the Indiana State Medical Association, in cooperation with interested governmental offices and organizations, such as the State Department of Education, the State Board of Health, the Indiana State Teachers Association, the Indiana School Board Association and others, establish a mechanism to assure sound and reasonably available medical advice to elementary and secondary schools for development and interpretation of health policies and cur-

ricula.

RESOLUTION 89-29 **Internal Physician Network**
 Introduced by: George H. Rawls, M.D., Indianapolis
 Referred to: Reference Committee 1
 ACTION: Adopted

Whereas, There is often an immediate need to personally contact physicians of ISMA for medical, political or legislative matters; therefore be it
 RESOLVED, That the Indiana State Medical Association develop an internal network of physician key contacts.

RESOLUTION 89-30A **Medical staff self-governance**
 Introduced by: Fort Wayne Medical Society
 Referred to: Reference Committee 1
 ACTION: Adopted substitute Resolution 89-30A

RESOLVED, That the ISMA continue to support medical staff self-governance; and be it further
 RESOLVED, That requests for funds for this activity be presented to the ISMA according to the bylaws.

RESOLUTION 89-31 **Appropriate reimbursement of insurance claims-processing**
 Introduced by: Dennis Richmond, M.D., Lafayette
 Referred to: Reference Committee 4
 ACTION: Not adopted

Whereas, The Medicare Catastrophic Coverage Act of 1988 requires physicians to submit detailed and itemized coding, including ICD9 diagnosis as well as CPT procedural coding in order to obtain reimbursement for services rendered to Medicare patients; and
 Whereas, It is estimated that in order for physicians to comply with these coding requirements, it will cost an additional \$40 million to \$80 million per year; and
 Whereas, Medicare carrier insurance companies are paid on a contract basis to provide claims-processing, such reimbursement is in the form of a base amount plus an additional per claim payment; therefore be it
 RESOLVED, That the Indiana State Medical Association take action to seek appropriate reimbursement to

■ resolutions

its physician members for the insurance claims-processing services which they are required to provide and for which at present the Medicare carriers are being reimbursed.

RESOLUTION 89-32 **Medical advice for schools**
 Introduced by: Marion County Medical Society
 Referred to: Reference Committee 4
 ACTION: Adopted substitute Resolution 89-28A in lieu of Resolutions 89-28 and 89-32

RESOLUTION 89-33 **Provision of scientific information regarding the abortion issue**
 Introduced by: Johnson County Medical Society
 ACTION: Withdrawn by sponsor

RESOLUTION 89-34 **Black infant mortality**
 Introduced by: Ray L. Henderson, M.D., Indianapolis
 Referred to: Reference Committee 4
 ACTION: Adopted substitute Resolution 89-20A in lieu of Resolutions 89-20 and 89-34

RESOLUTION 89-35 **Standardized attending physician statement for disability**
 Introduced by: Marion County Medical Society
 Referred to: Reference Committee 4
 ACTION: Adopted as amended

Whereas, Attending Physician Statement forms for the adjudication of disability claims vary widely; and

Whereas, The variety of forms serves as a detriment to the timely completion of forms to the benefit of patients/employees, employers and medical office personnel as documented by the Indiana Medical Group Management Association's interest in the development of a standardized Attending Physician Statement form; and

Whereas, A Standardized Attending Physician Statement form was developed for use in the Indianapolis area and accepted by the majority of employers of the

area; therefore be it

RESOLVED, That the Indiana State Medical Association adopt a standardized disability form and encourage its acceptance by Indiana employers and physicians.

Fiscal note: \$3,190

RESOLUTION 89-36 **Environment of medicine**
 Introduced by: Fred Dahling, M.D., New Haven
 ACTION: Withdrawn by sponsor

RESOLUTION 89-37 **Oversight of Medicare carrier**
 Introduced by: Grant County Medical Society
 Referred to: Reference Committee 4
 ACTION: Not adopted

Whereas, There have been numerous inappropriate delays in prompt payment to Medicare beneficiaries; and

Whereas, The withholding of these legitimate claims and their payments is not in the public interest; and

Whereas, The statewide Medicare carrier is a public-funded, taxpayer-supported program; therefore be it

RESOLVED, That a permanent, federal oversight committee be empowered to strictly monitor the Indiana Medicare carrier in order to uncover fraudulently denied, deliberately delayed or inappropriately processed Medicare claims; and that appropriate fines, civil penalty and/or jail terms be imposed individually and corporately if found guilty of these infractions.

RESOLUTION 89-38 **Potential Peer Review Organization (PRO) legislation**
 Introduced by: Grant County Medical Society
 Referred to: Reference Committee 3
 ACTION: Not adopted

Whereas, Federal legislation authorized HCFA to establish regional Peer Review Organizations (PROs) which are charged with monitoring physicians and establishing screens and certification methods; and

Whereas, These PROs are administered and staffed by nurses, clerks and an inadequate number of physicians, the majority of whom are generalists; and

Whereas, PRO personnel remain anonymous to the patient and are unaccountable for decisions which could have a serious adverse effect on patient care because of the lack of expertise and/or direct patient contact; and

Whereas, The unsatisfactory outcome of patient care directly caused by PRO decisions may make the physician in charge of the patient liable for malpractice losses; therefore be it

RESOLVED, That Indiana State Medical Association seek legislation which would render Peer Review Organizations liable for their decisions in order 1) that due care may be exercised in rendering PRO decisions, and 2) that PROs would provide personnel with the appropriate expertise in the different specialties.

RESOLUTION 89-39 Insurance reimbursement for administrative mandates

Introduced by: Grant County Medical Society

Referred to: Reference Committee 4

ACTION: Not adopted

Whereas, There is an ever-increasing amount of physician's time spent on administrative work; and

Whereas, Much of this administrative work is in regard to precertification for needed medical diagnostic testing or for hospital admissions of patients; and

Whereas, This insurance precertification path is mandated by the patient's insurance health policy, often with penalties on physicians if inappropriately or inadvertently not obtained; and

Whereas, This precertification mandate is between the patient and his insurance carrier - often negotiated by labor/management and the insurance carrier; and

Whereas, These demands on the physician's office time should at least be reimbursed; therefore be it

RESOLVED, That Indiana State Medical Association pursue avenues for obtaining appropriate CPT coding and insurance reimbursement for administrative time in following insurance mandates as set forth in the patient's health insurance policies.

RESOLUTION 89-40

Specialist need in PRO system

Introduced by: Grant County Medical Society

Referred to: Reference Committee 3

ACTION: Not adopted

Whereas, Federal legislation authorized HCFA to establish regional Peer Review Organizations (PROs) which are charged with monitoring physicians and establishing screens and certification methods; and

Whereas, These PROs are administered and staffed by nurses, clerks and an inadequate number of physicians, the majority of whom are generalists; and

Whereas, The current performance of the PROs has resulted in dangerous delays and unfair denial of very much needed medical services and a protracted appeal process; and

Whereas, This poor performance may be ascribed to the lack of specialists in the PRO system resulting in many decisions being handled by nurses and/or physicians not trained in the appropriate specialty; and

Whereas, The infusion of more specialists in the PRO system in the form of a "standby consultant system" involving the State Medical Association and/or a medical school faculty can provide 1) authoritative medical decisions and 2) hasten the appeal process so that instead of the current procedure which takes weeks or months, immediate action can be obtained; therefore be it

RESOLVED, That the Indiana State Medical Association recommend changes in the Peer Review Organization system in order to increase the participation of specialists in the system by means of a "standby consultant system" provided by a medical school faculty and/or the State Medical Association.

RESOLUTION 89-41

Generic labeling of prescriptions

Introduced by: Porter County Medical Society

Referred to: Reference Committee 3

ACTION: Adopted substitute Resolution 89-6A as amended, in lieu of Resolutions 89-6, 89-26, 89-41 and 89-56

resolutions

RESOLUTION 89-42 Testing for Human Immunodeficiency Virus (HIV)
Introduced by: Fort Wayne Medical Society
Referred to: Reference Committee 4
ACTION: Adopted as amended

Whereas, Human Immunodeficiency Virus Infection, hereinafter referred to as "HIV," is a national and global fatal epidemic with no known cure; and

Whereas, "HIV" (the end stage of which is AIDS) represents the epidemic of our century, the full scope of which is still not fully understood, and the problem affects all individuals; and

Whereas, The latest statistics of AIDS in the United States as reported by the National Centers for Disease Control are: 88,000 total cases reported since February 1989; and

Whereas, Efforts to promote voluntary preventative and educational measures to prevent the spread of HIV infection as well as other STDs are failing; and

Whereas, Traditional public health procedures formulated to prevent the transmission of incurable infectious diseases have been disregarded; and

Whereas, An incurable infectious disease can only be controlled by interrupting its transmission; and

Whereas, The determination of the proper methods of containing the spread of the virus (HIV) should be directed on the basis of scientific principles; and

Whereas, The current national administration proposed the testing of entering immigrants and those in the federal prisons to prevent the spread of HIV and also called on the state to include HIV infection among the communicable diseases now routinely tested before the issuance of marriage licenses; and

Whereas, Anonymous testing is costly and is counterproductive to the control of the (HIV) virus; and

Whereas, The solution lies in the exercise of public health enforcement and policing functions which, by their nature, are limited to local territorial jurisdictions; and

Whereas, Confidential testing by definition means that results are available only to the patient, his/her doctor, and when necessary, public health officials; and

Whereas, There is ample precedence for the confidential testing and reporting of infectious diseases to the public health officials; and

Whereas, The physician, allied health professionals and emergency safety personnel have a right to know when they are working with an infectious disease (if possible); and

Whereas, Several years after identification of HIV, there is yet to be established a concise, effective and medically sound policy to effectively deal with the epidemic; and

Whereas, The AIDS epidemic should be treated as a medical issue as were syphilis and T.B., and not as a political issue; and

Whereas, The most effective measure to curb the spread of the virus (HIV) will be based on policies established by state and local officials; and

Whereas, Physicians of this state have an obligation to assume a leadership role in the establishment of effective policies to deal with the spread of this deadly virus; therefore be it

RESOLVED, That the Indiana State Medical Association support and endorse a program that requires more broad-based testing for HIV; and be it further

RESOLVED, That upon reporting of a positive result (confirmatory), the State Board of Health would be required to begin case-finding and case-contacting activities with those individuals who have been reported as testing positive as with many other STDs; and be it further

RESOLVED, That hospital admittees should be appropriately tested for HIV; and that the disease be treated as an infectious disease so that we may maintain control until a cure is found.

RESOLUTION 89-43 Election of officers of the Indiana State Medical Association by mailed ballot
Introduced by: Charles M. Frankhouser, M.D., president Fort Wayne Medical Society
Referred to: Reference Committee 2
ACTION: Not adopted

Whereas, The membership of the Indiana State Medical Association, both in rural and urban areas, would benefit from more direct representation; and

Whereas, Physicians in both rural and urban areas should become actively involved in the decision-making process and policies of the Indiana State Medical Association; and

Whereas, County Medical Societies are stronger and more active when the elective process is in place; and

Whereas, Modern technology enables us to utilize in an expeditious manner the system of mailed balloting, and to take advantage of the technology available to us to increase representation and participation of membership; and

Whereas, Those county medical societies who have instituted the process of competitive elections have developed a more knowledgeable and involved membership; therefore be it

RESOLVED, That the Indiana State Medical Association shall adopt a policy of competitive elections, with a slate of at least two physicians; and be it further

RESOLVED, That this shall be accomplished through a nomination process, either by the current Board or by petition containing 50 or more signatures; and be it further

RESOLVED, That this shall be accomplished through a confidential, mailed ballot; and be it further

RESOLVED, That the nominees for the position of president of the Indiana State Medical Association and various offices shall prepare a written platform of ideas or programs on which he/she intends to run.

Fiscal note: \$7,560

RESOLUTION 89-44 **Resident work hours**
Introduced by: Marc Duerden, M.D.,
Resident Medical Society
Referred to: Reference Committee 1
ACTION: Adopted as amended

Whereas, Medicine continues to be a dynamic process and in the recent years, there has been a concerted effort to limit resident work hours for sundry reasons; and

Whereas, More recently there have been efforts by state legislations to enact laws that would limit these hours; and that the best way to enact this reform would better be handled by internal regulations; and

Whereas, The ACGME is in the process of having the specialties enact guidelines for resident work hours; therefore be it

RESOLVED, That the ISMA support in principle the need to limit resident work hours; and be it further

RESOLVED, That ISMA support the guidelines of the ACGME for resolution of the issue.

RESOLUTION 89-45 **Corporal punishment in public schools**
Introduced by: Philip F. Merk, M.D., Indianapolis
Referred to: Reference Committee 4
ACTION: Adopted

Whereas, Corporal punishment in public schools is not an effective means of changing behavior; and

Whereas, The effectiveness of corporal punishment actually diminishes with the increase of its application; and

Whereas, Teachers conduct classes without the threat of corporal punishment in all of Western Europe, in most Third World countries, in 16 American states, in 74% of cities with a million or more residents, and in almost half of cities with more than 50,000 residents, including Fort Wayne, Ind.; and

Whereas, Children who are recipients of force rather than understanding learn by direct example to apply force to cope with their problems; and

Whereas, The Indiana Chapter for Prevention of Child Abuse and 20 other national organizations oppose corporal punishment in public schools; therefore be it

RESOLVED, That the Indiana State Medical Association adopt a policy that corporal punishment in public schools is contrary to the best interests of children and should be abolished.

RESOLUTION 89-46 **RMS vote on the ISMA Board of Trustees**
Introduced by: Resident Medical Society
Referred to: Reference Committee 2
ACTION: Not adopted

Whereas, The Resident Medical Society has been an integral and active part of the Indiana State Medical Association since April 14, 1984; and

Whereas, Physicians throughout the State of Indiana are represented by the Resident Medical Society; and

Whereas, The Resident Medical Society has long held a position on the ISMA Board of Trustees in a nonvoting capacity; therefore be it

RESOLVED, That the position held by the Resident Medical Society on the ISMA Board of Trustees be awarded customary status to vote.

RESOLUTION 89-47 **Abortion**
Introduced by: Wayne-Union County
Medical Society
ACTION: Withdrawn by sponsor

■ resolutions

RESOLUTION 89-48

Hospital medical staff elections

Introduced by:

Lake County Medical Society

Referred to:

Reference Committee 1

ACTION:

Adopted

Whereas, Hospital medical staff bylaws and elections are essential for proper provision of physician medical services; and

Whereas, Hospital governing boards have responsibility for general operation of the hospital; and

Whereas, Such responsibility does not necessarily mean exclusive authority to approve all activities within the hospital; and

Whereas, Hospital medical staff bylaws and elections should remain as nearly autonomous as possible to assure independent judgment on acts ultimately affecting patient care; therefore be it

RESOLVED, That ISMA inform all members that no federal or Indiana statute or regulation requires exclusive approval of hospital medical staff elections by the hospital governing board; and be it further

RESOLVED, That ISMA inform all members that a provision in bylaws granting a hospital governing board such exclusive approval would be detrimental to hospital medical staff autonomy.

RESOLUTION 89-49

Proposed Medicare legislation

Introduced by:

Lake County Medical Society

Referred to:

Reference Committee 3

ACTION:

Adopted as amended

Whereas, The expenditure target concept as proposed in pending Medicare legislation is rationing of health care on the basis of federal appropriations; and

Whereas, Provision of health care on the basis of federal appropriations can lead to denial of needed care; and

Whereas, The onus of rationing such care will be placed upon health care providers in much the same manner as has occurred under the DRG program; and

Whereas, The responsibility for such rationing of care should be made clear to the public; therefore be it

RESOLVED, That ISMA voice formal opposition to the expenditure target concept; and be it further

RESOLVED, That this opposition be communicated to all Indiana U.S. Congressmen, to organizations representing patients, to the AMA and to any other appropriate private and public organizations; and be it further

RESOLVED, That ISMA record and communicate to its members and the public the vote of each Indiana U.S. Congressmen on the subject of expenditure targets and other pertinent legislation.

RESOLUTION 89-50

Medicare appropriations

Introduced by:

Lake County Medical Society

Referred to:

Reference Committee 3

ACTION:

Adoption

Whereas, Medicare population is increasing; and

Whereas, Medicare serves as the major coverage for many under Medicare; and

Whereas, The extent of coverage is determined by appropriations; and

Whereas, Congress has cut substantial amounts from Medicare without regard to promised coverage; and

Whereas, Such cuts will deny promised care to patients; therefore be it

RESOLVED, That ISMA oppose cuts by Congress to the Medicare appropriations.

RESOLUTION 89-51

Reimbursement for treatment

Introduced by:

Bartholomew-Brown County Medical Society

Referred to:

Reference Committee 3

ACTION:

Referred to the ISMA Board of Trustees

Whereas, Physicians in Indiana are concerned with lowering health care costs; therefore be it

RESOLVED, That the Indiana State Medical Association take necessary action on behalf of the citizens of Indiana to ensure that insurers and third-party payors be required to pay or reimburse for covered treatment or services wherever rendered.

RESOLUTION 89-52

Billing for multiple procedures

Introduced by:

Bartholomew-Brown County Medical Society

Referred to:

Reference Committee 3

ACTION:

Adopted

Whereas, Indicating charges that are not charged (as suggested by Medicare and others) is misleading and confusing to the patients; and

Whereas, Physicians are often penalized if correct (reduced) charges are recorded regarding second and third procedures; therefore be it

RESOLVED, That the Indiana State Medical Association take all remedies to ensure that providers are not penalized for listing second and third procedure charges at the correct, reduced amounts; and be it further

RESOLVED, That the Indiana State Medical Association seek all remedies to ensure correction of physician profiles that have been reduced because of incorrect processing by third-party insurers for second and third procedures.

RESOLUTION 89-53 "Unreasonable and unnecessary" terminology for services

Introduced by: Bartholomew-Brown County Medical Society

Referred to: Reference Committee 3

ACTION: Adopted

Whereas, Most people believe what they read to be true; and

Whereas, "Unreasonable" and/or "unnecessary" are words which have specific meanings in the English language; and

Whereas, This terminology is being used for services that are sometimes both reasonable and necessary; therefore be it

RESOLVED, That all remedies be taken by the Indiana State Medical Association to force HCFA, Medicare, and others to use "unreasonable and unnecessary" only for services and treatments that are considered unreasonable and unnecessary by the medical community; and be it further

RESOLVED, That all remedies be taken by the Indiana State Medical Association to force HCFA, Medicare, and others to not use "unreasonable and unnecessary" for services that they simply have decided not to accept as covered services.

RESOLUTION 89-54

Medicaid resources

Introduced by:

Lake County Medical Society

Referred to:

Reference Committee 3

ACTION:

Adopted as amended, for report to the 1990 House of Delegates

Whereas, Medicaid is dependent largely upon state appropriations; and

Whereas, The State of Indiana has recently curtailed Medicaid appropriations; and

Whereas, Such cuts were made across the entire program and without regard to evaluation of need - of currently covered and of uncovered, and deserving; and

Whereas, Many presently deserving uninsured (in addition to presently covered) could receive basic coverage under a more rational distribution of resources; and

Whereas, A system of Medicaid coverage should be established that attempts to cover such basic needs on a rational basis; therefore be it

RESOLVED, That an ad hoc committee of ISMA be formed to review the new Oregon state program for Medicaid distribution of resources and report to the 1990 House of Delegates.

RESOLUTION 89-55

Multiple billings

Introduced by:

Miami County Medical Society

Referred to:

Reference Committee 3

ACTION:

Not adopted

Whereas, Title 19 of the Medicare Act proscribes a physician billing for services provided to his/her patient that were provided by a covering physician; and

Whereas, Such services truly are those of the patient's personal physician who has established the treatment plans and recommendations for his/her own patients which the covering physician, for the most part, merely oversees and implements whether the personal physician is physically present or not; and

Whereas, Medicare recipients are confused and angered when they receive bills or fiscal intermediary summaries showing multiple billings and payments made to various physicians for the same hospitalization - each having different MAAC payments - creating a facade of fraud; and

Whereas, Many call groups consist of a combination of multiple physician providers other than the per-

resolutions

sonal physician who, alone, has the vital information necessary for the complexities of Medicare billing; therefore be it

RESOLVED, That ISMA relentlessly pursue the abolition of this oppressive and totally unnecessary intrusion of the federal government into the business aspects of the medical profession; and be it further

RESOLVED, That the Indiana Delegation to the AMA House of Delegates vigorously present this resolution for adoption by the AMA House of Delegates.

RESOLUTION 89-56

Introduced by:

Referred to:

ACTION:

Generic substitution

Miami County Medical Society

Reference Committee 3

Adopted substitute Resolution 89-6A as amended, in lieu of Resolutions 89-6, 89-26, 89-41 and 89-56

RESOLUTION 89-57

Introduced by:

Referred to:

ACTION:

Tattooing a minor – legislation

Bartholomew-Brown County Medical Society

Reference Committee 3

Not adopted

Whereas, Tattoos are often a stigma to young people; and

Whereas, Tattoos are difficult and expensive to remove; and

Whereas, Tattoos often cannot be removed without leaving a large ugly scar; therefore be it

RESOLVED, That the Indiana State Medical Association attempt to influence legislation to make decorative tattooing of a minor a felony punishable by fine and imprisonment. □

Reference Committee members

Reference Committee 1

Reports of Officers and ISMA/AMA matters

Paul Siebenmorgen, M.D., Terre Haute, chairman

John V. Osborne, M.D., Muncie

G. Beach Gattman, M.D., Elkhart

Panayotis G. Iatridis, M.D., Gary

Harold M. Manifold, M.D., Bloomington

Reference Committee 2

Constitution and Bylaws

Peter Winters, M.D., Indianapolis, chairman

Barbara Bourland, M.D., Lafayette

Roland M. Kohr, M.D., Terre Haute

John H. Fallon, M.D., Indianapolis

James Haughn, M.D., Wabash

Reference Committee 3

Legislation and Insurance

Eugene G. Roach, M.D., Anderson, chairman

Thomas A. Brubaker, M.D., Munster

John S. Rodway, M.D., Columbus

Charles E. Schoenhals, M.D., Fort Wayne

James R. Lewis, M.D., Richmond

Reference Committee 4

Member Services and Public Health

Bruce W. Romick, M.D., Evansville, chairman

Bernard J. Emkes, M.D., Indianapolis

Dallas Coate, M.D., Lebanon

Susan K. Pyle, M.D., Union City

John W. Luce, M.D., Michigan City □

ISMA

Fifty Year Club



Last year, 58 physician members were honored by the Indiana State Medical Association in recognition of their 50 years of service as loyal and devoted practitioners of medicine. These new members of the Fifty Year Club will join the roster of almost 1,300 distinguished Hoosier physicians inducted into the Fifty Year Club since its inception in 1948.

The Indiana State Medical Association wishes to formally acknowledge the following physicians for their unselfish service to their patients and profession:

Robert P. Acher, M.D., Decatur County
 Leslie M. Baker, M.D., Dearborn-Ohio County
 James S. Battersby, M.D., Marion County
 Thomas A. Brady, M.D., Marion County
 Milton V. Caldwell, M.D., Vigo County
 Irvin Caplin, M.D., Marion County
 Francis E. Carrel, M.D., Tippecanoe County
 Hubert L. Collins, M.D., Marion County
 Patrick J. Corcoran, M.D., Vanderburgh County
 Marvin R. Davis, M.D., Bartholomew County
 John W. Deever, M.D., Marion County
 Larkin D. Denton, M.D., Howard County
 Carolyn H. Dickson, M.D., Marion County
 Roberts K. Dodd, M.D., Vanderburgh County
 David L. Dunlap, M.D., St. Joseph County
 Gordon S. Fessler, M.D., Dearborn-Ohio County
 Henry Fisher, M.D., Grant County
 William J. Fitzgerald, M.D., Marion County
 Isadore E. Friedman, M.D., Lake County
 William D. Gambill, M.D., Marion County
 Elpidio L. Gamboa, M.D., Newton County
 Meredith B. Gossard, M.D., Tipton County
 Ted L. Grisell, M.D., Marion County
 George K. Hammersley, M.D., Clinton County
 Martin F. Hanson, M.D., Madison County
 Warren C. Hastings, M.D., Fort Wayne-Allen County
 George J. Heid, M.D., Tippecanoe County
 Gordon T. Herrmann, M.D., Vanderburgh County
 Milton Herzberg, M.D., Parke-Vermillion County

Kenneth G. Hill, M.D., Henry County
 Charles J. Hillenbrand, M.D., LaPorte County
 Phillip T. Hodgins, M.D., Orange County
 Mohamed A. Jehanyar, M.D., White County
 Howard L. Kahn, M.D., Marion County
 Forest M. Kendall, M.D., Elkhart County
 Robert W. Kuhn, M.D., Hancock County
 George N. Love, M.D., Marion County
 Loren H. Martin, M.D., Marion County
 A. D. McKinley, M.D., Marion County
 Theodore O. Meyer, M.D., Fort Wayne-Allen County
 LaVerne B. Miller, M.D., Vanderburgh County
 Ray D. Miller, M.D., Morgan County
 Louis W. Nie, M.D., Marion County
 Francis W. Parker, M.D., Cass County
 Franklin F. Premuda, M.D., Lake County
 Vivencio F. Raymundo, M.D., Madison County
 Richard Schantz, M.D., Jasper County
 Joseph M. Siekierski, M.D., Lake County
 John T. Slama, M.D., Lake County
 William C. Stafford, M.D., Hendricks County
 Alvin T. Stone, M.D., Marion County
 Borys Surawicz, M.D., Marion County
 Milton E. Tomak, M.D., Greene County
 Daniel C. Tweedall, M.D., Vanderburgh County
 Charles E. Walters, M.D., St. Joseph County
 Wesley C. Ward, M.D., Marion County
 Benjamin A. Weinberg, M.D., Lake County
 Fred Madison Wilson, M.D., Marion County ▢

■ auxiliary report

Darlene Haddawi
ISMA-A legislative chairman

With the 1990 session of the Indiana General Assembly underway, we are reminded that the future of medicine is being determined not by physicians, but by Congress and the state legislature. As advocates for quality medical care in Indiana, each of us must develop our legislative skills to help ensure that the practice of medicine remains responsive to the needs of our physicians and their patients.

To help county auxiliaries organize effective legislative activity, the Indiana State Medical Association Auxiliary (ISMA-A) presented a legislative seminar Oct. 11 in Plymouth. The purpose of the seminar was to highlight the resources that can help auxiliaries become more knowledgeable on legislative issues and to learn how this information can help us participate in the legislative process.

Mike Abrams, interim director of the ISMA Government Relations Department, said, "There are no spectators or innocent bystanders in the political process. Legislation is a competitive arena; someone wins and someone loses." The ISMA Government Relations Department is an important source for county auxiliaries to obtain background information on proposed medical legislation.

Bruce Blehart, a member of the AMA legislative staff, spoke on the AMA's legislative concerns for this session of Congress. Ed Langston, M.D., chairman of the ISMA Commission on Legislation,

discussed the aims and organization of the commission.

Vivian Priddy, a board member of the Indiana Medical Political Action Committee, discussed political contributions through political action committees. Joanne Rains, an ISMA-A member, presented information and experiences from the AMPAC Campaign Management School in Washington, D.C. I spoke on ways to participate in legislative activities on the county level by sponsoring legislative workshops, writing letters to legislators, setting up phone banks, participating in legislative study groups and responding to ISMA and AMA legislative alerts.

The luncheon speaker was Rep. Don Nelson (R-Indianapolis), who spoke on health-related legislative issues and ways to influence legislation.

A legislative alert from the AMA-A Legislative Committee was issued Sept. 27. The alert asked all auxiliaries to call their representatives in Congress and urge them to vote for a permanent airline smoking ban on all domestic flights. The House and Senate voted in November to ban smoking on all domestic flights except those to or from Hawaii and Alaska that take longer than six hours. The ban will become effective by March 1. The AMA expressed thanks to all auxiliary members for their quick responses that helped ensure that medicine's views on important health issues are being heard by members of Congress.

The ISMA-A 1990 Day at the Capital will be held Thursday,

Feb. 15, at the Embassy Suites Hotel in downtown Indianapolis. The Government Relations Department will outline the medical legislation that is being proposed for this session. County legislative chairmen are urged to send letters to each of their representatives inviting them to join us for lunch. This will be the perfect opportunity to share with your representative your concerns on health legislation. After lunch, auxiliaries can visit the General Assembly while it is in session and tour the Capitol. Watch for the January issue of the *Pulse* for further information and a reservation form.

The 1990 legislative session is a short session. It will last only 30 session days and must adjourn on or before March 15. Issues that may be debated in this session include: credentialing for several allied health practitioners, physician immunity from liability, regulatory and oversight activity of tanning parlors, physician dispensing of medication from their office, the forensic use of DNA fingerprinting, nursing shortages, the need for admissions criteria for substance abuse treatment centers, the length of time medical records must be kept and abortion. Background information on these issues can be obtained from the ISMA Government Relations Department.

As ISMA-A members, we must remember that active participation in the political process is a vital way to improve the quality of health care in Indiana. □



·LAKE CHARLEVOIX·

DISTINCTIVE LAKEFRONT AND
PARKWAY HOME SITES

Come enjoy the relaxing lifestyle of Lake Charlevoix. Immerse yourself in the luxury of your own private 18 acre lake, nature area and unmatched landscape. Special attention to every detail makes for a uniquely designed living community in one of Indianapolis' most desirable northside locations. Sites are limited. Call or visit Lake Charlevoix today.

Lake Charlevoix will include homes featuring the city's premier builders:

- Jim Carriger
- Mark Conreux
- Rex Weiper
- Richard Carriger
- Steve Hoss
- Weston Development, Inc.
- Mandt, Inc.
- Will Wright



Lots priced from the 50's
Telephone 255 9832

Located at 6420 Fall Creek Road between Shadeland Ave. and Kessler Blvd.
Hours: Weekdays 5 p.m. to 7 p.m. Saturday & Sunday 1 p.m. to 6 p.m.

\$30,000 BONUS OFFERED TO HEALTH CARE PROFESSIONALS

If you are a board-certified physician or a candidate for board certification in one of the following specialties, you may qualify for a bonus of up to \$30,000 in the Army Reserve.

Anesthesiology
General Surgery
Thoracic Surgery
Pediatric Surgery

Orthopedic Surgery
Colon-Rectal Surgery
Vascular Surgery
Neurosurgery

A test program is being conducted from August 1, 1989 through September 30, 1990, which offers a bonus to eligible physicians who reside in certain geographic areas (Pennsylvania, West Virginia, Ohio, Michigan, Illinois, Indiana, Wisconsin, Minnesota and Iowa). You would receive a \$10,000 bonus for each year you serve as an Army Reserve physician—for a maximum of three years.

You may serve near your home, at times convenient for you, or at Army medical facilities in the United States and abroad. There are also opportunities to attend conferences and participate in special training programs, such as the Advanced Trauma Life Support Course.

To learn more about the Army Reserve and the Bonus Test Program, call one of our experienced Medical Personnel Counselors:

MAJ KATHERINE DELK-CALKINS
(317) 542-3758 (COLLECT)

**ARMY RESERVE
BE ALL YOU CAN BE**

CARDIOLOGY – DIAGNOSTIC & INTERVENTIONAL

NASSER, SMITH AND PINKERTON
CARDIOLOGY, INC.



providing

William K. Nasser, M.D.
Michael L. Smith, M.D.
Cass A. Pinkerton, M.D.
James W. VanTassel, M.D.
Dennis K. Dickos, M.D.
John D. Slack, M.D.
Charles M. Orr, M.D.
Jane Howard, M.D.
James H. Adlam, M.D.
V. Michael Bournique, M.D.
Frank J. Green, M.D.
Nancy A. Branyas, M.D.
Charles P. Taliercio, M.D.
Bruce F. Waller, M.D.

Cardiology and Cardiac Catheterization
Echocardiography
Exercise Stress Testing
Coronary Angioplasty
Nuclear Cardiology
Pacemaker Surveillance
Holter Monitoring
Percutaneous Valvuloplasty
Electrophysiologic Testing
Coronary Atherectomy
Myocardial Biopsy
Automatic Implantable Cardioverter Defibrillator

Suite 400
St. Vincent Professional Building
8402 Harcourt Road
Indianapolis, Indiana 46260
Telephones:
Office: **317-871-6666**
Toll Free:

800-732-1482 (Indiana)
800-CHD-PTCA (Indiana)
800-CAD-PTCA (National)

PHYSICIAN
REFERRAL ONLY

CARDIOLOGY



INDIANA HEART PHYSICIANS, INC.

Beech Grove Medical Center
112 North 17th Avenue
Suite 300
Beech Grove, IN 46107

With additional offices located in the
Indianapolis-Greenwood area and
Columbus

Indianapolis-Greenwood:
(317) 783-8800
(800) 992-2081 (Indiana Only)
Columbus:
(812) 379-2020
(800) 537-9587 (Indiana Only)

H.O. Hickman, Jr., MD, FACC
Thomas M. Mueller, MD, FACC
J. Douglas Graham, MD, FACC
Kathleen H. Flohr, PhD, MD, FACC
Jeffery F. Christie, MD
David J. Hamilton, MD
Stephen H. Kliman, MD, FACC
Thomas C. Passo, MD
Kevin C. Preuss, MD, FACC
Emily A. Diltz, MD, FACC

Cardiology and Cardiac Catheterization
Coronary Angioplasty
Balloon Valvuloplasty
Electrophysiology
Permanent Pacemaker Implantation
Nuclear Cardiology
Doppler and Echocardiography
Exercise Stress Testing
Holter Monitoring
ECG Event Monitoring
Pacemaker Surveillance
Stress Echocardiography
Noninvasive Peripheral Vascular
Evaluation



Indianapolis Cardiology Associates, Inc.

Robert E. Edmands, M.D., FACC

Samuel M. Hazlett III, M.D.

Don B. Ziperman, M.D., FACC

Physician Referral Only

- Cardiology and Cardiac Catheterization
- Doppler and Echocardiography
- Exercise Stress Testing
- Coronary Angioplasty
- Pacemaker Surveillance
- Holter Monitoring

1315 North Arlington Ave.
Suite 100
Indianapolis, IN 46219
(317) 359-5301

7250 Clearvista Dr.
Suite 227
Indianapolis, IN 46256
(317) 841-5385

CARDIOLOGY

FORT WAYNE CARDIOLOGY

Basil C. Genetos, M.D., F.A.C.C.
Robert W. Godley, M.D., F.A.C.C.
Michael J. Mirro, M.D., F.A.C.C.
Kevin J. Kelly, M.D., F.A.C.C.

Fred Doloresco, M.D., F.A.C.C.
John F. Phillips, M.D., F.A.C.C.
Patrick J. Daley, M.D., F.A.C.C.
William W. Wilson, M.D.

are pleased to announce the association of

James J. Heger, M.D., F.A.C.C.

for the practice of cardiology.

Fort Wayne Cardiology, Inc.

P. O. Box 5603
1912 Carew Street
Fort Wayne, IN 46895-5603
(219) 482-4865
1-800-637-6505 (Indiana)
1-800-334-4371 (Ohio, Michigan, Kentucky, Illinois)

CARDIOLOGY

Cardiology Consultants, P.C.

is pleased to announce its merger with

Ravi N. Bathina, M.D.

*Practice limited to cardiology and nonsurgical intervention
in cardiovascular disease and preventative cardiology.*

Robert E. Swint, Sr., M.D., F.A.C.C.

Mark A. Jones, M.D., F.A.C.C.

David A. Kaminskas, M.D., F.A.C.C.

Gary A. Hambel, M.D., F.A.C.C.

Mary H. Heintz, M.D., F.A.C.C.

Ravi N. Bathina, M.D.

Gregory C. Tomlinson, M.D., F.A.C.C.

Brian T. Lew, M.D.

3000 S. Wayne Ave.
Fort Wayne, IN 46804
(219) 744-2297

7224 Engle Rd.
Fort Wayne, IN 46804
(219) 432-2297

800 Broadway, Suite 220
Fort Wayne, IN 46802
(219) 422-2558

With clinics in Auburn, Bluffton, and Warsaw, Indiana
& Paulding, Van Wert, and St. Mary's Ohio.

ORTHOPEDIC SURGERY

FRACTURE CARE/TRAUMA
SPORTS MEDICINE
ARTHROSCOPIC SURGERY
JOINT RECONSTRUCTION
SCOLIOSIS
SPINAL SURGERY
SHOULDER SURGERY
HAND SURGERY
FOOT SURGERY
PEDIATRIC ORTHOPAEDICS
ADULT ORTHOPAEDICS



OFFICE ANSWERS DAY & NIGHT

TOLL FREE IN INDIANA (800) 223-3381

DONALD S. BLACKWELL, M.D.
F.R. BRUECKMANN, M.D., F.A.C.S.
ANTHONY R. LASICH, M.D.
WILLIAM O. IRVINE, M.D.
JOSEPH C. RANDOLPH, M.D.
DONALD E. RUSSELL, M.D.
MARK R. STEVENS, M.D.
TERRY R. TRAMMELL, M.D.
ANDREW J. VICAR, M.D.
VINCENT L. FRAGOMENI, M.D.
JOHN K. SCHNEIDER, M.D.
JOSEPH R. BAELE, M.D.
SANFORD S. KUNKEL, M.D.
DAVID A. FISHER, M.D.
HENRY G. STEIN, M.D., F.A.C.S.

Orthopaedic Surgeons

MAIN OFFICE

1801 N. Senate Blvd.
Suite 200

923-5352

Appointment Scheduling 924-2778

WESTLAKE

805 Beachway Dr.

244-9499

DANVILLE

252 Meadow Dr.

745-4525

Major Credit Cards Accepted

CRITICAL CARE

**Critical
Care
Medicine**

*Specialists
in the care of
critically ill or
injured patients*

David Powner, MD, FCCP, FCCM

Michael Buran, MD Regis Lagler, MD

Stephen Olvey, MD Daniel J. Polacek, MD



1701 North Senate Boulevard
Indianapolis, IN 46202

**For information
and patient referrals**

(317) 929-5293

After office hours for patient referrals call
929-8551 and page Critical Care Intensivist.

DOCTORS:

This space is available.

For rates, write or call

Indiana Medicine

3935 N. Meridian St.

Indianapolis, IN 46208

(317) 925-7545

1-800-969-7545 in Indiana only

DOCTORS:

This space is available.

For rates, write or call

Indiana Medicine

3935 N. Meridian St.

Indianapolis, IN 46208

(317) 925-7545

1-800-969-7545 in Indiana only

DOCTORS:

This space is available.

For rates, write or call

Indiana Medicine

3935 N. Meridian St.

Indianapolis, IN 46208

(317) 925-7545

1-800-969-7545 in Indiana only

CLINICAL & ANATOMIC PATHOLOGY



ANATOMIC PATHOLOGY/CYTOLOGY

Surgical Pathology
Gynecologic/Respiratory
and Fluid Cytology
Fine Needle Aspiration Biopsy
Performance and Interpretation

LABORATORY AND OFFICE
7430 North Shadeland Ave.
Indianapolis, IN 46250
(317) 841-0133

Edwin E. Pontius, M.D.
Director
Mary L. Forster, M.D.
Ted Bloch, M.D.
G.R. Schwenk Jr., M.D.
Robert J. Swedo, M.D.
Board Certified Pathologists

COURIER SERVICES FOR:
Physician Offices
Ambulatory Surgery Centers
Hospitals

Medicare/Medicaid Approved
(Assignments Accepted)
Blue Shield Preferred Provider
Accept Maxicare, PMA/PHA, etc.

ORTHOPEDIC FOOT SURGERY



ROBERT M. PALMER, M.D.
A.A.O.S. F.A.C.S.

Diplomate of the American Board
of Orthopaedic Surgery

Member of the American Orthopaedic
Foot and Ankle Society

ORTHOPAEDIC RECONSTRUCTIVE SURGERY OF THE FOOT AND ANKLE

HOOSIER ORTHOPAEDICS & SPORTS MEDICINE, P.C.
2020 W. 86th Street, Suite 304
Indianapolis, Indiana 46260
(317) 872-3364

OTOLOGY

MERIDIAN OTOLOGY LAB

*Complete Audiometric Evaluations
*Hearing Aid Evaluations and Dispensing
*Brainstem Auditory Evoked Response
*Visual Evoked Response
*Electronystagmography
*Assistive Listening Devices—Demonstrations Available

Richard Kurtz, M.D. Jack Summerlin, M.D.
Marvin R. Kolodny, Ph.D.
Director of Audiology

3266 N. Meridian Street Indianapolis, Indiana
Suite B12 (317) 925-7077

ALCOHOLISM TREATMENT

Indiana's Leading Hospitals Specializing In The Treatment of Alcoholism and Drug Abuse.



- adolescent program
- adult program
- family program
- older adults program
- impaired professionals program
- cocaine program
- outpatient program
- disabled program
- relapse program
- co-dependency program

OUTREACH OFFICES

Bloomington • Fort Wayne • Clarksville • Merrillville • Indianapolis • Marion
South Bend • Greenwood • Kokomo • Lafayette

Michael Chadwick, M.D.
David Gregory, M.D.
Koala Center
2223 Poshard Drive
Columbus, Indiana
(812) 376-1711

John Saalwaechter, M.D.
Koala Adolescent Center
1404 S. State Avenue
Indianapolis, Indiana
(317) 783-4084

Daniel Kubley, M.D.
Koala Center
1800 N. Oak Road
Plymouth, Indiana
(219) 936-3784

Kete Cockrell, M.D.
Koala Center
1711 Lafayette Avenue
Lebanon, Indiana
(317) 482-3711

Indiana Toll-Free • 24-Hour HELPLINE • 1-800-622-4711

ALCOHOLISM TREATMENT

Eugene G. Roach, M.D.
Executive/Medical Director



Anderson Center
of Saint John's
2210 Jackson Street
Anderson, Indiana 46016

1-800-435-9143 or (317) 646-8383

- Comprehensive Alcohol and Drug Treatment
- Separate Programs for Adolescents and Adults
- Free Assessment and Intervention

ALCOHOLISM TREATMENT

Douglas Bullington, M.D.
Program Director



COUNTERPOINT CENTER
at CPC Valle Vista Hospital
898 E. Main Street
Greenwood, IN 46143
317/887-1348

- Free evaluation and intervention
- Adult & Adolescent Treatment Services
- 24 hours a-day

■ physicians' directory

INTERNAL MEDICINE

NEPHROLOGY & INTERNAL MEDICINE, INC.

Thomas Wm Alley M.D., FACP
George W. Applegate, M.D.
Richard Bloch, M.D.
Charles B. Carter, M.D.
William H. Dick, M.D., FACP

Theodore F. Hegeman, M.D.
Douglas F. Johnstone, M.D.
Wendy L. Kindig, M.D.
LeRoy H. King, Jr., M.D., FACP
Mary A. Margolis, M.D.
Tim E. Taber, M.D.

**1801 N. Senate Blvd., Suite 355
Indianapolis 46202
Tel: 317-924-8425**

By Physician Referral

Answering Service 926-3466

Clinical Nephrology, Hemodialysis, Peritoneal Dialysis, Renal Transplantation, Metabolic Kidney Stone Disease, Hypertension, Fluid and Electrolyte Imbalance, Critical Care

HEMODIALYSIS

CHRONIC MAINTENANCE OUTPATIENT HEMODIALYSIS

DIALYSIS INSTITUTE OF ANDERSON
2629 Nichol Avenue
Anderson, Indiana 46011
317-649-0772

DIALYSIS INSTITUTE OF BEECH GROVE
3834 South Emerson Avenue
Indianapolis, Indiana 46203
317-787-3171

DIALYSIS INSTITUTE OF KOKOMO
Community Medical Arts Center
3611 South Reed Rd. (31 Bypass)
Kokomo, Indiana 46902
317-453-0606

For further information contact

NEPHROLOGY & INTERNAL MEDICINE, INC.
1801 N. Senate Blvd., Suite #355
Indianapolis, Indiana 46202
317-924-8425

Outpatient renal consultation may be
scheduled at any location.

HAND SURGERY

JOHN C. KLEIN, M.D.

Specializing in the diagnosis and treatment of hand, wrist, and forearm disorders.

2727 N. Pennsylvania St.
Indianapolis, IN 46205

317-925-1665
Answered 24 hours

Diplomate American Board of Orthopedic Surgery
with certificate of added qualifications in surgery of the hand.

HEMATOLOGY - ONCOLOGY

JOHN A. CAVINS, M.D.

8220 NAAB ROAD, SUITE 105
INDIANAPOLIS, INDIANA 46260

TELEPHONE (317) 876 1036

SERVING

INDIANAPOLIS

CARMEL

NOBLESVILLE

DERMATOPATHOLOGY

DERMATOPATHOLOGY LABORATORY

Larry J. Buckel, M.D.
Robert M. Hurwitz, M.D.

Howard R. Gray, M.D.
William B. Moores, M.D.



Diplomates of the American Boards
of
Dermatology and Dermatopathology

Specializing in
Inflammatory Skin Diseases
and
Neoplasms of the Skin

9202 North Meridian Street
Suite 215

Approved for and Accept
Medicare and Medicaid
Assignment

Indianapolis, Ind. 46260
(317) 843-2204

UPS Mailers and Courier Service Available

PSYCHIATRY

PSYCHIATRY

Eugene G. Roach, M.D.
Executive/Medical Director



Anderson Center

of Saint John's
2210 Jackson Street
Anderson, Indiana 46016

1-800-435-9143 or (317) 646-8114

- Comprehensive Psychiatric Treatment
- Separate Programs for Adolescents, Adults and Older Adults
- Program for Dual Diagnosis

Davis Psychiatric Clinic, Inc.

1431 North Delaware Street
Indianapolis, Indiana 46202
317/634-9930

Larry M. Davis, M.D.
R. Peter Mohlman, M.D.
Judith L. Campbell, M.D.

Comprehensive Child, Adolescent, Adult Psychiatry
Sexual Therapy, Crisis Intervention
Alcohol and Substance Abuse

PERIPHERAL VASCULAR SURGERY



VASCULAR SURGERY, P.C.

Austin L. Gardner, M.D.
Malcolm B. Herring, M.D.
Daniel R. LeGrand, M.D.
David L. Madison, M.D.
Spencer F. Goodson, M.D.

Vascular
Diagnostics
— Mobile
— Non-invasive
— Testing™

St. Vincent Professional Building
8402 Harcourt Road
Suite 613
Indianapolis, Indiana 46260
Telephone (317) 871-6400
TOLL FREE (800) 662-5367

Carmel Medical Center
13450 North Meridian Street
Suite 160
Carmel, Indiana 46032
Telephone (317) 573-7040
TOLL FREE (800) 446-0298



The Vascular Lab

**NONINVASIVE
VASCULAR TESTING**

The vascular lab offers a full spectrum of diagnostic vascular testing services, including the new addition of color computed sonography, supported by the entire team of:

John F. Ansbro, M.D. • Alan T. Marty, M.D. • Herbert Dan Adams, M.D.
Richard A. Murrell, M.D. • Daniel B. Daniels, M.D.

Cardiovascular Surgery Inc.

350 West Columbia
Suite 350
Evansville, Indiana 47710
812-423-2395

■ physicians' directory

BREAST DISEASES

INDIANA CENTER FOR BREAST DISEASES

DAVID W. PRICE, M.D.

Practice limited to Multidisciplinary Treatment of
BREAST DISEASES

Diagnosis	(317) 872-9580
Consultation	8330 Naab Road, Suite 213
Treatment options	Indianapolis, IN 46260
Preservation surgery	
Long-term followup	Appointment by referral

ABDOMINAL SURGERY

TED W. GRISELL, M.D.

*Providing consultative services
for physicians throughout Indiana
for patients with
complex management problems*

5317 East 16th Street 317-359-8261
Indianapolis 46218 Phone answered 24 hours

DOCTORS:

This space is available.

For rates, write or call
Indiana Medicine
3935 N. Meridian St.
Indianapolis, IN 46208
(317) 925-7545
1-800-969-7545 in Indiana only

PLASTIC SURGERY

GARY T. RAFLO
M.D., F.A.C.S.

OPHTHALMIC
PLASTIC AND
RECONSTRUCTIVE
SURGERY



9333 NORTH
MERIDIAN
SUITE 302
INDIANAPOLIS
IN 46260
317 573 9966
800 937 9966



JOHN G. PANTZER JR., M.D.

Fellow
American College of Surgeons
Diplomate
American Board of Plastic Surgery
1801 North Senate Blvd
Suite 735
Indianapolis, Indiana 46202
Tel: 317-929-5500

ASTHMA & ALLERGY

MARK HOLBREICH, M.D.

**PEDIATRIC AND ADULT
ASTHMA, ALLERGY AND IMMUNOLOGY**

8803 N. Meridian St.
Suite 365
Indianapolis, Indiana
(317) 574-0230

- | | |
|-----------------|---------------------------|
| ○ Asthma | ○ Adverse Food Reactions |
| ○ Chronic Cough | ○ Drug Sensitivity |
| ○ Rhinitis | ○ Stinging Insect Allergy |

ONCOLOGY — HEMATOLOGY

INDIANA ONCOLOGY-HEMATOLOGY CONSULTANTS



ADULT ONCOLOGY HEMATOLOGY

Laurence H. Bates, M.D.
William H. Bond, M.D.
William M. Dugan, M.D.
Redmond P. Hogan, M.D.
Gregory W. Smith, M.D.

PEDIATRIC ONCOLOGY HEMATOLOGY

Deborah S. Provisor, M.D.

1828 N. ILLINOIS
INDIANAPOLIS
INDIANA 46202

PHONE: 317/927-5770
TOLL FREE: 1-800-ONC-HEME
1-800-662-4363

*Located in the Byram Gates Middleton House
Listed on the National Register of Historic Places*

RADIATION ONCOLOGY



Physicians:
ROGER ROBISON
DAVID BELL
TAE CHUNG

Radiation Oncology Services for Southwest Indiana

TERRE HAUTE
Regional Hospital
(812) 234-7756

VINCENNES
Good Samaritan Hospital
(812) 885-3939

ROGER ROBISON, M.D., F.A.C.P.
M.D. Anderson, 1980
Certified: Radiation
Oncology
Medical Oncology

DAVID BELL, M.D., Ph.D.
M.D. Anderson, 1981
Certified: Radiation
Oncology

TAE CHUNG, M.D.
Chicago Hines, V.A., 1976
Certified: Radiation
Oncology

RADIATION ONCOLOGY

TRI-STATE RADIATION ONCOLOGY

Evansville
Cancer Center
Evansville, Indiana
(812) 474-1110



Welborn
Cancer Center
Evansville, Indiana
(812) 426-8373

AL KORBA, M.D.; ALY RAZEK, M.D.;
THOMAS HAYES, M.D.; AMR AREF, M.D.; SHANNON LAMB, M.D.

★ ★ ★ ★ ★

Tri-County Cancer Care Center
Jasper, Indiana
(812) 482-2212

DEV DAS SHETH, M.D.

Tri-County Cancer Care Center
Princeton, Indiana
(812) 386-6663

MOISES DOMINGO, M.D.

★ ★ ★ ★ ★

Olney Cancer Center
Olney, Illinois
(618) 392-3050

MOISES DOMINGO, M.D.

Harrisburg Oncology Associates
Harrisburg, Illinois
(618) 252-5126

MANJU GUPTA, M.D.

★ ★ ★ ★ ★

Radiation Oncology
Owensboro, Kentucky
(502) 926-7228

TRISTAN BRIONES, M.D.

Henderson Cancer Center
Henderson, Kentucky
(502) 827-0255

AMR AREF, M.D.

★ ★ ★ ★ ★

In Indiana 1-800-843-7117
Out of Indiana 1-800-331-9294
24-hour answering service (812) 476-1367

ONCOLOGY

Indiana Regional **Cancer Center**

Science made Human.™

Medical Oncology And Hematology

L.K. Everson, M.D.

Andrew Ross
Greenspan, M.D.

Shivaji Gunale, M.D.

Keith Logie, M.D.

M.S. Murali, M.D.

Radiation Oncology

Nini Bermudez-Webb, M.D.

Thomas O'Connor, M.D.

Palliative Care

Neil Irick, M.D.



Community Hospitals Indianapolis

(317) 353-4758

■physicians' directory

OPHTHALMOLOGY

GARY T. RAFLO
M.D., F.A.C.S.

OPHTHALMIC
PLASTIC AND
RECONSTRUCTIVE
SURGERY



9333 NORTH
MERIDIAN
SUITE 302
INDIANAPOLIS
IN 46260
317 573 9966
800 937 9966

FEJLOW AMERICAN COLLEGE OF SURGEONS
AMERICAN SOCIETY OF OPHTHALMIC PLASTIC
AND RECONSTRUCTIVE SURGERY
DIPLOMATE AMERICAN BOARD OF OPHTHALMOLOGY
SURGERY EYELID AND EYEBROW COSMETIC SURGERY
PTOSIS
EYELID AND ORBITAL TUMORS
LACRIMAL DRAINAGE DISORDERS
ORBITAL AND FACIAL TRAUMA
THYROID EYE DISORDERS

NEUROLOGY

Shirley M. Mueller, M.D.

General Neurology

Pain, Headache &

Diseases of the Autonomic Nervous System Including Dizziness

Testing Available

317-871-6000

Indianapolis

North: St. Vincent's Professional Bldg. #726

South: University Heights Professional Bldg., Suite M

COLON & RECTAL SURGERY

William S. Sobat, M.D.

Specialist in the diagnosis and treatment of colon and rectal disease.



INDIANA COLON & RECTAL CENTER, P.C.

1633 North Capitol

Suite 650

Indianapolis, IN 46202

929-2888

Fellow of the American College of Surgeons

COLON & RECTAL SURGERY

W. M. KENDRICK, M.D.

G. A. DONNALLY, M.D.

R. JAMES WILSON, M.D.

W. E. KELLEY, M.D.

RICHARD L. STOUT, M.D.

PAULA A. HALL, M.D.

Practice limited to Colonoscopy,
Treatment and Surgery of Rectal Diseases

Kendrick Memorial Hospital, Inc.

Mooresville, Indiana

Tel: 317-831-9300

1-800-222-7994

(JCAH Accredited)

DOCTORS:

This space is available.

For rates, write or call: INDIANA MEDICINE, 3935 N.
Meridian St., Indianapolis, IN 46208, (317) 925-7545,
1-800-969-7545 in Indiana only.

DOCTORS:

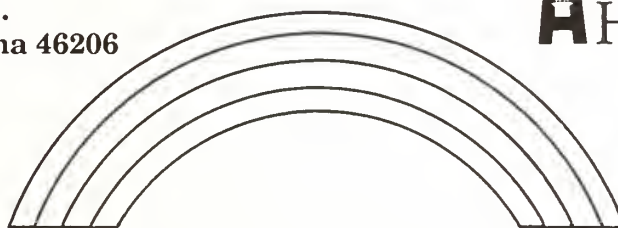
This space is available.

For rates, write or call: INDIANA MEDICINE, 3935 N.
Meridian St., Indianapolis, IN 46208, (317) 925-7545,
1-800-969-7545 in Indiana only.

TRANSPLANTATION

METHODIST TRANSPLANT CENTER

P.O. Box 1367
1701 N. Senate Blvd.
Indianapolis, Indiana 46206



24 - HOUR REFERRAL

(317) 929-8677

(800) 772-7788

HEART TRANSPLANTATION

Surgical Director
Harold Halbrook, M.D.
Program Cardiologist:
Douglas Pitts, M.D.

LUNG TRANSPLANTATION

Surgical Director
Harold Halbrook, M.D.
Program Pulmonologist:
Michael Niemeier, M.D.

KIDNEY TRANSPLANTATION
PANCREAS TRANSPLANTATION

Surgical Director
Brian Haag, M.D.
Program Nephrologist:
Charles Carter, M.D.

LIVER TRANSPLANTATION

Surgical Director
Dale A. Rouch, M.D.
Program Gastroenterologists:
Peds - Vanessa Z. Ameem, M.D.
Adult - Brian G. Sperl, M.D.

CORNEAL TRANSPLANTATION

Surgical Director
Stephen Johnson, M.D.

TISSUE/BONE BANK

Medical Director
David A. Fisher, M.D.

isma leadership

OFFICERS

President — George H. Rawls, Indianapolis
 Pres-elect — Michael O. Mellinger, LaGrange
 Immediate Past Pres — Fred W. Dahling, New Haven
 Executive Director — Richard R. King, Indianapolis
 Treasurer — Max M. Wesemann, Franklin
 Asst. Treasurer — John A. Bizal, Evansville
 Speaker — C. Dyke Egnatz, Schererville
 Vice Speaker — William H. Beeson, Indianapolis

EXECUTIVE COMMITTEE

*George H. Rawls, Indianapolis
 Michael O. Mellinger, LaGrange
 Fred W. Dahling, New Haven
 Max M. Wesemann, Franklin
 John A. Bizal, Evansville
 William C. Van Ness II, Summitville
 William E. Cooper, Columbus
 Clarence G. Clarkson, Richmond
 C. Dyke Egnatz, Schererville
 William H. Beeson, Indianapolis

TRUSTEES (Terms end in October)

District

1 — Tom M. Harmon, Evansville (1992)
 2 — Paul J. Wenzler, Bloomington (1990)
 3 — Gordon L. Gutmann, Jeffersonville (1991)
 4 — William E. Cooper, Columbus (1992)
 5 — Ered E. Haggerty, Greencastle (1990)
 6 — Clarence G. Clarkson, Richmond (1991)
 7 — Donna J. Meade, Indianapolis (1992)
 7 — John M. Records, Franklin (1990)
 7 — Peter L. Winters, Indianapolis (1991)
 *8 — Wm. C. Van Ness, Summitville (1990)
 9 — R. Adrian Lanning, Noblesville (1991)
 10 — Nicholas L. Polite, Hammond (1992)
 11 — Jack W. Higgins, Kokomo (1990)
 12 — John R. Thomas, Fort Wayne (1991)
 13 — Alfred C. Cox, South Bend (1992)
 RMS — John H. Fallon, Indianapolis (1990)
 MSS — Todd Rumsey (1990)
 *Chairman

ALTERNATE TRUSTEES (Terms end in October)

District

1 — Bruce W. Romick, Evansville (1991)
 2 — Jerome E. Melchior, Vincennes (1992)
 3 — Richard P. Gardner, New Albany (1992)

4 — George L. Alcorn, Madison (1991)
 5 — Roland M. Kohr, Terre Haute (1991)
 6 — Ray A. Haas, Greenfield (1992)
 7 — Ronald G. Blankenbaker, Indianapolis (1991)
 7 — Willis W. Stogsdill, Indianapolis (1991)
 7 — Charles O. McCormick III, Greenwood (1991)
 8 — John V. Osborne, Muncie (1991)
 9 — Stephen D. Tharp, Frankfort (1992)
 10 — Frank M. Sturdevant, Valparaiso (1991)
 11 — Laurence K. Musselman, Marion (1992)
 12 — Charles M. Frankhouser, Fort Wayne (1992)
 13 — Richard J. Houck, Michigan City (1991)
 RMS — Lynn L. Witty, Anderson (1990)
 MSS — Carla Brumbaugh, Indianapolis (1990)

AMA DELEGATES (Terms end Dec. 31)

Marvin E. Priddy, Fort Wayne (1991)
 Peter R. Petrich, Attica (1991)
 Herbert Khalouf, Marion (1991)
 John A. Knote, Lafayette (1990)
 Alvin J. Haley, Carmel (1990)
 George T. Lukemeyer, Indianapolis (1990)

AMA ALTERNATE DELEGATES (Terms end Dec. 31)

John D. MacDougall, Beech Grove (1991)
 William C. Van Ness II, Summitville (1991)
 Richard L. Reedy, Yorktown (1991)
 Shirley Thompson Khalouf, Marion (1990)
 Max N. Hoffman, Covington (1990)
 Edward L. Langston, Indianapolis (1990)

DISTRICT OFFICERS AND MEETINGS

1 — Pres: Taft W. Roe, Evansville
 Secy: Richard T. Tibbals, Evansville
 Annual Meeting: 1990
 2 — Pres: Betty J. Dukes, Dugger
 Secy: Steve Du Pre, Sullivan
 Annual Meeting: 1990
 3 — Pres: Richard P. Gardner, New Albany
 Secy: C. M. Hocker, New Albany
 Annual Meeting: May 9, 1990
 4 — Pres: Howard C. Jackson, Madison
 Secy: Warren R. Rucker, Madison
 Annual Meeting: May 2, 1990
 5 — Pres: Roland M. Kohr, Terre Haute
 Secy: Peggy Sankey-Swain, Rockville
 Annual Meeting: Sept. 27, 1990
 6 — Pres: Daniel P. Rains, New Castle
 Secy: Dennis L. Roberts, Shelbyville

Annual Meeting: May 9, 1990
 7 — Pres: George A. Donnelly, Mooresville
 Secy: H. Marshall Trusler, Greenfield
 Annual Meeting: 1990
 8 — Pres: Susan K. Pyle, Union City
 Secy: Jerome M. Leahey, Union City
 Annual Meeting: June 6, 1990
 9 — Pres: Peter R. Petrich, Attica
 Secy: R. Adrian Lanning, Noblesville
 Annual Meeting: June 13, 1990
 10 — Pres: Thomas A. Brubaker, Munster
 Secy: Barron M. Palmer, Hammond
 Annual Meeting: June 20, 1990
 11 — Pres: James E. Duncan, LaFontaine
 Secy: Ered C. Poehler, La Fontaine
 Annual Meeting: Sept. 19, 1990
 12 — Pres: Mark S. Souder, Auburn
 Secy: John A. Egli, Topeka
 Annual Meeting: Sept. 20, 1990
 13 — Pres: Thomas J. Eberts, South Bend
 Secy: John W. Schurz, South Bend
 Annual Meeting: Sept. 12, 1990

COMMISSION CHAIRMEN

Constitution and Bylaws

Helen E. Czenkusch, Indianapolis

Legislation

Edward L. Langston, Indianapolis

Physician Assistance

Dolores Burant, Elkhart

Medical Services

Alfred C. Cox, South Bend

Convention Arrangements

Charles O. McCormick, Greenwood

Medical Education

James E. Carter, Indianapolis

Sports Medicine

Ronald G. Blankenbaker, Indianapolis

COMMITTEE CHAIRMEN

Medical Malpractice (Ad Hoc)

George T. Lukemeyer, Indianapolis

Grievance

G. Beach Gattman, Elkhart

Future Planning

Alvin J. Haley, Indianapolis

Indiana Medical Foundation

Frank B. Ramsey, Indianapolis

CHAIRMEN OF ISMA SPECIALTY SECTIONS

ALLERGY

Paul D. Isenberg, Indianapolis

ANESTHESIOLOGY

Stephen F. Dierdorf, Indianapolis

CUTANEOUS MEDICINE

Peter L. Winters, Indianapolis

DIRECTORS MEDICAL EDUCATION

Stephen Jav, Indianapolis

EMERGENCY MEDICINE

Thomas C. Madden, Greenwood

FAMILY PRACTICE

Dallas E. Coate, Lebanon

INTERNAL MEDICINE

L. Craig Miller, Indianapolis

MEDICAL DIRECTORS AND STAFF PHYSICIANS OF NURSING FACILITIES

Hugh K. Thatcher, Indianapolis

NEUROLOGICAL SURGERY

Marvin R. Bernard, Merrillville

NEUROLOGY

Charles A. Bonsett, Indianapolis

NUCLEAR MEDICINE

Mike Mullins, Indianapolis

OBSTETRICS & GYNECOLOGY

Philip N. Eskew Jr., Carmel

OPHTHALMOLOGY

D. Dean Cofield, Bloomington

ORTHOPEDIC SURGERY

James G. Buchholz, Fort Wayne

OTOLARYNGOLOGY, HEAD & NECK SURGERY

William E. Cooper, Columbus

PATHOLOGY & FORENSIC MEDICINE

Arthur C. Jay, Columbus

PEDIATRICS

Michael A. Hogan, Indianapolis

PHYSICAL MEDICINE AND REHABILITATION

Arden Pletzer, Anderson

PREVENTIVE MEDICINE AND PUBLIC HEALTH

Gary A. Babcock, Chesterton

PSYCHIATRY

Patricia Sharpley, Indianapolis

RADIOLOGY

David Goldenberg, Indianapolis

SURGERY

Ted W. Grisell, Indianapolis

UROLOGY

Earl H. Johnson, Indianapolis

ISMA KEY STAFF

Richard R. King, Executive Director

Michael Huntley, Director of Member Services

John Wilson, Director of Finance, Resident Medical Society

Adele Lash, Director of Communications

Mike Abrams, Interim Director of Government Relations

Ronald Dyer, General Counsel

Richard Ryan, Field Services

Bob Sullivan, Field Services

Janna Kosinski, Field Services

Dana Wallace, Computer Services

Susan Grant, Executive Assistant

Mary Alice Cary, Executive Assistant

Rosanna Iler, Membership, Auxiliary, Students

Tom Martens, Members Health Insurance, CME Coordinator

Carolyn Downing, Specialty Society Services

Tina Sims, INDIANA MEDICINE



CANCER PARANOIA?

Diet. The sun. Radon.

It seems just about every day there's a new cancer warning. No wonder people are getting a little crazy. But there is a simple way to take control of the situation. And your life.

Call the American Cancer Society's toll-free information line. Our people will answer any questions you have about prevention or detection. No one has more complete and up-to-date information.

We'll give you the truth. The facts. The personal guidance to do what's right.

**CALL 1-800-ACS-2345
WE'LL EASE YOUR MIND.**



Spectrum Emergency Care, Inc.

We currently have part-time, full-time and Medical Director positions available in various low to moderate volume Emergency Departments throughout Indiana. We can offer you a flexible schedule from month to month with no over-head, office expenses and no on-call duty. Physicians receive a competitive hourly rate and the best occurrence malpractice insurance in the industry. Full-time physicians (those who provide 48 hours per week) may also receive relocation assistance, CME funds, and Indiana licensing fee reimbursement. In addition, Medical Directors are offered administrative orientation and training, health, life, dental and disability insurance and a 401k retirement plan. Call us today for more information and an application.

Joan E. Logel, Physician Recruiter

1-800-325-3982, ext. 3087



SPECTRUM EMERGENCY CARE, Inc.

P.O. Box 27352, St. Louis, MO 63141

■ news briefs

New stress test developed

A new form of stress testing for coronary artery disease has been developed at the Indiana University School of Medicine, Krannert Institute of Cardiology.

I.U. cardiologists now can conduct cardiac stress tests without using exercise, the standard of all cardiac stress testing, in cases where patients are not physically capable of walking a treadmill or riding a stationary bike. The cardiologists developed the tests in a joint research effort with two Indianapolis-based companies, Eli Lilly and Co. and Nova Microsonic, a subsidiary of Advanced Technology Laboratory in Seattle.

The researchers said their stress test, which uses digital echocardiography and dobutamine as a substitute for exercise to assess heart function, has an advantage over currently available tests. The ultrasonic procedure appears to be very accurate, safe, well-tolerated, convenient for the patient and less costly than alternative techniques in determining heart muscle and coronary artery disease.

Results from the the I.U. studies were presented during the 62nd scientific session of the American Heart Association in New Orleans last November.

Neurology materials offered

The American Academy of Neurology is offering free copies of *Patient Information Guide for Neurology* and *The Medical Specialty of Neurology* to interested physicians, health care institutions and medical societies.

The Patient Information Guide for

Neurology is a directory of organizations that provide patient information and services in neurologic disease. *The Medical Specialty of Neurology* is a general information brochure for those interested in a career in the neurosciences.

To obtain the publications, write Robert Moffitt, American Academy of Neurology, 2221 University Ave. S.E., Suite 335, Minneapolis, MN 55414 or call (612) 623-8115.

PICI names new director

Barbara Killila has been named director of education/risk management for the Physicians Insurance Co. of Indiana. She will lead PICI's continuing education programs for Indiana physicians and direct risk management programs and seminars sponsored by PICI.

Killila comes to PICI from Wishard Memorial Hospital in Indianapolis, where she was manager of quality assurance and risk management for seven years. Before that, she was a staff nurse and patient care manager at Methodist Hospital in Indianapolis.

PICI, which offers medical malpractice insurance for Indiana doctors and dentists, is located at 8425 Woodfield Crossing Blvd., Suite 300, Indianapolis.

Arthritis guide available

The Arthritis Foundation is offering a new resource to help patients with arthritis, 800,000 of whom live in Indiana.

The 415-page *Guide to Independent Living for People with Arthritis* offers practical tips for joint protection and energy conservation in each of 23 different aspects of

daily life. It also lists more than 1,000 self-help products designed to make everyday tasks easier.

The guide is available for \$3.75 plus \$1.25 for postage. To order a copy, call the Arthritis Foundation, Indiana Chapter, 1-800-382-4536 or write 8646 Guion Road, Indianapolis, IN 46268.

Hazardous materials discussed

University Health Resources Inc. has released its latest videotape, titled *Handling Hazardous Materials: Signs of the Times*.

The 17-minute videotape informs the health care worker how to recognize and deal with hazardous materials they may encounter on the job. It may be rented or purchased.

For more information, call University Health Resources, (404) 826-8969.

Conference topic is epilepsy

"Surgery for Epilepsy" is the subject of an upcoming Consensus Development Conference sponsored by the National Institute of Neurological Disorders and Stroke and the Office of Medical Applications of Research, National Institutes of Health (NIH). The conference will be held March 19 to 21 in Masur Auditorium at the NIH in Bethesda, Md.

The conference will bring together specialists in neurosurgery, neuropsychology, research, epidemiology and other relevant fields.

For more information, write Conference Registrar, Prospect Associates, Suite 500, 1801 Rockville Pike, Rockville, MD 20852, or call (301) 468-MEET. □

EVERY SUNDAY 10 A.M. — 12 NOON ET
ONLY ON THE DISCOVERY CHANNEL

A M E R I C A N
M E D I C A L
T E L E V I S I O N

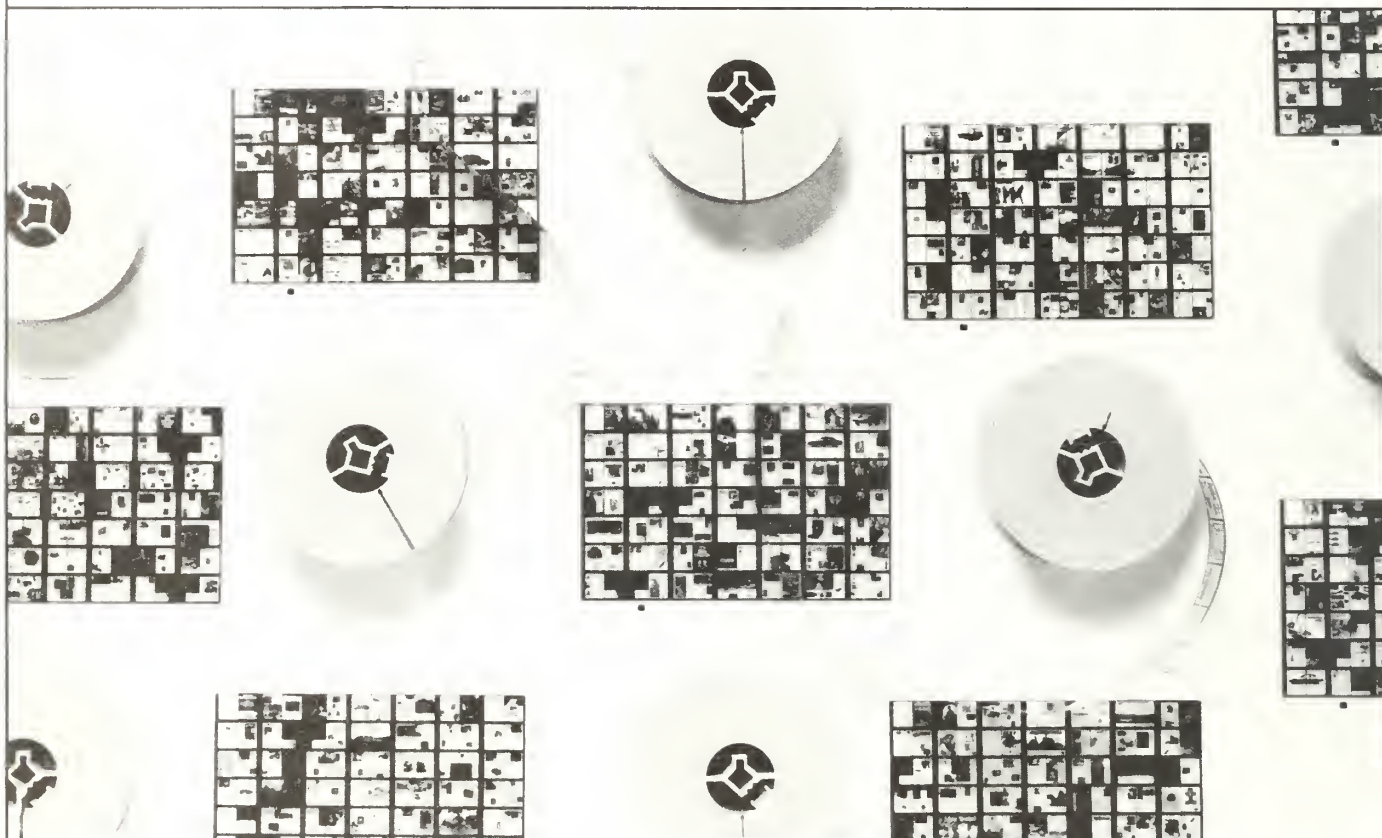


MEDICAL NEWS THAT MAKES WAVES

- The Latest Clinical Advances
- CME Credit*
- Legislative And Socioeconomic News

*For more information, call 1-800-289-6000. Check local listings for programming in your area.

This publication is available in microform.



UMI reproduces this publication in microform: microfiche and 16 or 35mm microfilm. For information about this publication or any of the more than 16,000 periodicals and 7,000 newspapers we offer, complete and mail this coupon to UMI, 300 North Zeeb Road, Ann Arbor, MI 48106 USA. Or call us toll-free for an immediate response: 800-521-0600. From Alaska and Michigan call collect 313-761-4700. From Canada call toll-free 800-343-5299.

U·M·I

A Bell & Howell Company
300 North Zeeb Road
Ann Arbor, MI 48106 USA
800-521-0600 toll-free
313-761-4700 collect from Alaska and Michigan
800-343-5299 toll-free from Canada

Please send me information about the titles I've listed below:

Name

Title

Company/Institution

Address

City/State/Zip

Phone (

)

Samuel E. Bechtold, M.D.

Dr. Bechtold, 79, a retired South Bend obstetrician/gynecologist, died Nov. 8 in Healthwin Hospital in South Bend.

He was a 1935 graduate of the Indiana University School of Medicine and served in the Army Air Corps during World War II.

Dr. Bechtold was an honorary life member of the American College of Obstetricians and Gynecologists, which he helped found. He was a past president of the St. Joseph County Medical Society and the medical staffs at Memorial Hospital and the former St. Joseph's Hospital.

He also was a member of the ISMA Fifty Year Club.

Kendrick T. Edmonds, M.D.

Dr. Edmonds, 76, a retired radiologist, died Nov. 5 at Bartholomew County Hospital in Columbus.

He graduated from the University of Louisville School of Medicine in 1939 and served in the

Army Medical Corps during World War II.

Dr. Edmonds established his medical practice in Bedford in 1948 and was a radiologist for Dunn Memorial Hospital and the Southern Indiana Radiological Association.

He was certified by the American Board of Radiology.

Norman C. Henderson, M.D.

Dr. Henderson, 84, a retired Michigan City otolaryngologist, died Oct. 28 at St. Anthony Hospital in Michigan City.

He was a 1930 graduate of the University of Arkansas School of Medicine and served as a commander in the U.S. Navy Medical Corps.

Dr. Henderson was a member of the St. Anthony Hospital staff for more than 40 years. He organized and led the LaPorte County Sheriff's Mounted Possee and served as grand marshal of the Michigan City Independence Day Parade for 15 years.

Morris C. Marcus, M.D.

Dr. Marcus, 95, a retired otolaryngologist, died Nov. 1 at a retirement home in Oldsmar, Fla.

He was a graduate of the University of Illinois School of Medicine.

Dr. Marcus was Indiana's oldest practicing physician when he retired five years ago. He practiced medicine in Gary for 60 years and was an intern in St. Louis during the flu epidemic of 1919-1920.

He was certified by the American Board of Otolaryngology.

Alexander L. Scheer, M.D.

Dr. Scheer, 67, a retired Elkhart otolaryngologist, died Sept. 28 in Salzburg, Austria.

He was a 1950 graduate of the University of Medicine, Timisoara, Romania, and a native of Romania.

Dr. Scheer practiced medicine in Elkhart from 1965 until he retired in 1988. ▀

Memorials: Indiana Medical Foundation

The Indiana Medical Foundation Inc., was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of INDIANA MEDICINE. Contributions made to the foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for federal estate and gift tax purposes.

The foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

J. Melvin Masters, M.D.
Nancy A. Roeske, M.D.
Richard Sharp

John W. Beeler, M.D.
Mildred Ramsey
Earl Mericle, M.D.

John Bush
Dallas McKelvey

Dr. Charles W. Coats, program director of the Children's Psychiatric Unit at Valle Vista Hospital in Greenwood, received board certification in the sub-specialty of child and adolescent psychiatry from the American Board of Psychiatry and Neurology.

Dr. Dean D.T. Maglinte, associate editor of *Radiology* and a staff member of the Department of Radiology at Methodist Hospital in Indianapolis, was named the second most prolific reviewer according to a survey released by *Radiology* (173:217-218, 1989) covering a three and a half year period.

Dr. Marvin C. Christie, a Beech Grove family practitioner, was certified as a diplomate of the American Board of Quality Assurance and Utilization Review Physicians.

Dr. Ramon A. Henderson, a Muncie pediatrician, was named a Sagamore of the Wabash by Gov. Evan Bayh for his contributions to the citizens of Muncie and Indiana.

Dr. Maurice E. John Jr., a Jeffersonville ophthalmologist, traveled to West Germany in September to teach a course on radial keratotomy surgery to 40 West German surgeons.

Dr. Patrick C. Flamion, an Evansville family practitioner, and **Dr. Gerhard M. Grieser**, an Evansville neurosurgeon and president of the medical staff at Tri-State Regional Rehabilitation Hospital in Evansville, were named members of the hospital's first board of directors.

Dr. William A. Koontz, a Gas City family practitioner, was named Doctor of the Year by Mississinewa Valley Medical Assistants during the annual Doctor's Night Banquet in October.

Physician Recognition Award recipients

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Armbruster, Thomas G., Fort Wayne
Bacchus, H. M. Jr., Fort Wayne
Bannin, Jase M., Indianapolis
Boyle, Daniel E. Jr., Michigan City
Canal, David F., Indianapolis
Carey, John A., Gary
Chung, Tae S., Terre Haute
Canard, Douglas S., Frankfort
Coans, Philip M., Indianapolis
Draper, Thomas W., Indianapolis
Ferre, Mary M., Indianapolis
Goodell, Charles L., Muncie
Grassman, Charles B., Carmel
Halum, Ramon G., Munster
Hamang, Peter M., Habart
Heck, Larry L., Indianapolis
Hachstetter, Mark A., Indianapolis
Hull, Joel L., Chesterton
Keener, Gerald T., Indianapolis
Kelly, George G., Munster
Kencas, John, St. John

Kroh, Casey, Fort Wayne
Kadawski, Joseph S., Fort Wayne
Lloyd-Janes, Trevor T., New Palestine
Louden, Andrew F., Indianapolis
Madura, James A., Indianapolis
Miller, James R., Merrillville
Misamore, Gary W., Indianapolis
Myers, Kenneth J., Petersburg
Myers, Woodrow A., Indianapolis
Pairitz, Frank D., South Bend
Pejic, Rade M., Michigan City
Peters, Elmer E., Brookville
Rademacher, Wade, Beech Grove
Rea, Robert A., Goshen
Reszel, Paul A., Fort Wayne
Steinitz, Huga R., Valparaiso
Sturdevant, Frank M., Valparaiso
Tumuluri, V.S., Beech Grove
Wagner, Lindley H., Lafayette
Zieg, R. Daniel, Indianapolis
Ziperman, Don. B., Indianapolis

Dr. Raymond A. Weitemier, a retired Richmond pediatrician, received the 1989 Paul S. Rhoads Humanity in Medicine Award at the annual Rhoads Humanity in Medicine Lecture program and dinner at Reid Memorial Hospital in October.

Dr. Michael G. Hostetter, an Indianapolis internist at St. Vincent Hospital, and **Dr. Joseph J. Mamlin**, chief of general internal medicine at the Indiana University School of Medicine, have been appointed to the new Indiana Commission on State Health Policy by Gov. Evan Bayh.

Dr. Joseph E. Walther, an Indianapolis internist, has been elected president and CEO of the

Walther Cancer Institute's board of directors. He also received the Z.G. Clevenger Award from the "I" Men's Association of Indiana University for his work as a flight surgeon during World War II, where he received the Silver Star, Soldiers Medal, Air Medal and Bronze Star.

Dr. Alan S. Ray, an Anderson radiologist, was named Business Associate of the Year by the American Business Women's Association, Silhouette Chapter.

Dr. Charles L.F. Richert of Greenwood has been named a diplomate of the American Board of Family Practice.

Dr. Claude J. Meyer, Sellersburg, attended the Annual Scien-

tific Assembly of the American Academy of Family Physicians in Los Angeles in September.

Dr. C. William Hanke III, an Indianapolis dermatologist, was elected president of the Indiana Division of the American Cancer Society's board of directors and **Dr. A. Patricia Harper**, an Indianapolis radiologist, was elected president-elect.

Dr. Thomas L. Sutula, a South Bend family practitioner, was named to the Elkhart County Health Board.

Dr. Richard D. Zeph, a Carmel otolaryngologist; **Dr. Daniel A. Neumann**, a Vincennes general surgeon; **Dr. Gregory B. Millis**, a Columbus general surgeon; and **Dr. Joseph M. Casey Sr.**, a Jeffersonville general surgeon, were named fellows of the American College of Surgeons at its October clinical congress in Atlanta, Ga.

Dr. Jane M. Hoopes Orr, an Evansville pediatrician, was one of four Hoosiers honored for their contributions to health at the Indiana Public Health Foundation's Annual "Tony and Mary Hulman" Health Achievement Awards banquet in Indianapolis.

Dr. Charles R. Routh, an internist at Ball Memorial Hospital in Muncie, was elected to a three-year term on the Ball Memorial Hospital Homecare Services board. **Dr. Ralph F. Montgomery**, a Muncie obstetrician and gynecologist, was elected to the hospital board.

Dr. Richard H. Shafer, an Alexandria family practitioner, has been named Madison County Health Officer.

Dr. Bernard A. Bergman, a Michigan City psychiatrist, has been named medical director at the new Charter Hospital in South Bend.

Dr. A. Alan Fischer, professor and founding chairman, Department of Family Medicine, Indiana University School of Medicine, received the Sagamore of the Wabash Award; he was honored for his service as chairman of the C.H.O.I.C.E. (Community and Home Options to Institutional Care for the Elderly and Disabled) Board. □

New ISMA members

John C. Baenziger, M.D., Indianapolis, anatomic/clinical pathology.

Daniel T. Barrido Jr., M.D., Marion, internal medicine.

James N. Dreyfus, M.D., Munster, internal medicine.

John L. Felton, M.D., Valparaiso, ophthalmology.

Zahia M. Hassan, M.D., Evansville, neonatal-perinatal medicine.

Jesse D. Hoff, M.D., Evansville, family practice.

Frank S. Hopkins, M.D., Jasper, internal medicine.

Francis J. Kelly, M.D., Huntingburg, orthopedic surgery.

Norma Jean S. Kreilein, M.D., Jasper, pediatrics.

Donald W. Kucharzyk, D.O., Munster, orthopedic surgery.

Walter B. Lindsey, M.D., Gary, family practice.

Mary E. Mendus, D.O., Hammond, family practice.

Gregory M. Mielke, M.D., Elkhart, obstetrics and gynecology.

Harry A. Moffitt, D.O., Munster, orthopedic surgery.

Salil Rajmaira, M.D., Marion, orthopedic surgery.

Keith Reich, D.O., Munster, internal medicine.

Residents

Anthony L. Funke, M.D., Indianapolis, anesthesiology.

Anton J. Koopman, M.D., Indianapolis, family practice. □



"Just take the two aspirins every morning. You don't need to call me every morning."

■ classifieds

WELLNESS PROGRAM needs physician. Work with police and fire departments! Treadmill fitness testing and pre-employment physicals performed. Some chart review with nurse practitioners. Please send confidential resume to Carl Otten, M.D., Personnel Development Group Inc., 222 E. Ohio St., Suite 800, Indianapolis, IN 46204.

FAMILY PRACTICE: Live in horse country! Louisville, Ky., suburb. Both independent and group practices available. Supported by new, full-service, 120-bed hospital. Excellent financial benefits/relocation package. Resident considered. Contact Teresa Owens, Tyler & Co., (404) 641-6518.

FAMILY PRACTICE SPECIALIST – Rural resort setting in Arkansas, USA, needs additional physician for rapidly growing medical practice. New, state-of-the art diagnostic equipment at your disposal in cardiology, gastroenterology, gynecology and obstetrics, laboratory and ultrasound. Physicians who have passed United States FLEX or Canadian LMCC exams, please send curriculum vitae to: Carl Hurd, Administrator, Garst Medical Center, P.O. Drawer 540, Mountain View, AR 72560.

FOR SALE: Refurbished medical instruments. Criticon Monitor, H.P. Monitors, Ohio anesthesia machines, Coulter counter, electrocardia, electrosurgery, cryosurgery, exam tables, O.R. and exam lights. Contact Bernard Medical Resources, 1555 Dixie Highway, Park Hills, KY 41011, or call (606) 581-5205.

OB-GYN / FAMILY PRACTICE / INTERNAL MEDICINE – Several attractive opportunities in INDIANA, WISCONSIN and MICHIGAN (many on lakes) for BC/BE physicians. Contact Bob Strzelczyk to discuss your practice requirements and these positions. STRELCHECK & ASSOCIATES INC., 12724 N. Maplecrest Lane, Mequon, WI 53092, 1-800-243-4353.

MICHIGAN CITY, IND. – Seeking full-time and part-time emergency physicians for 99-bed, low-volume, hospital emergency department. Excellent compensation, paid malpractice and full benefit package to full-time staff. Opportunity for advancement. Contact Emergency Consultants Inc., 2240 S. Airport Rd., Room 20, Traverse City, MI 49684, 1-800-253-1795 or, in Michigan, 1-800-632-3496.

POSITION AVAILABLE with thriving three-clinic urgency care corporation. Practice heavily emphasizing industrial, sports medicine and wellness programs. Regular work week, no call. Assistant medical director available. Salary and benefits in six figures. Contact Dr. Dean Elzey, (219) 489-2772.

FOR RENT – Naples, Fla. Week minimum. Condominium near Ritz Carlton with one bedroom plus sofa sleeper. Bayside view, one block to ocean. Rooftop swimming pool, other amenities. Call for mailing. (317) 231-7253 days; (317) 842-6655 or (317) 823-0577 evenings.

EMERGENCY MEDICINE – Terre Haute, Ind. Local group seeking full-time career-oriented emergency physician for position in small community hospital. Flexible scheduling, very competitive compensation package. Send CV or contact William R. Grannen, Priority Health Care, P.C., 7179 Lamplite Ct., Cincinnati, OH 45244, (513) 231-0922.

EXAMINATION TABLE FOR SALE – Perfect condition. \$800 or best offer. (317) 872-3599.

INDIANAPOLIS, IND. – MetroHealth, a division of Methodist Hospital, is seeking board-certified or board-eligible physicians for the departments of family practice, internal medicine and obstetrics/gynecology. We are an established multispecialty physician group offering an attractive compensation package and professional liability.

Please contact: Joyce Irwin, Human Resources, MetroHealth, P.O. Box 1367, Indianapolis, IN 46206, (317) 929-2721.

INTERNIST BE/BC – North Shore Internal Medicine, PC is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to 2420 First Ave. South, Escanaba, MI 49829, (906) 786-1563.

FAMILY PRACTICE – Southwest Iowa community of 7,800 (servicing 27,000) seeking a family physician to join well-established six-doctor practice. Modern facility adjacent to 100-bed hospital. Income guaranteed first year and full partnership after first year. For additional information, write Atlantic Medical Center, Sue Marsh, Office Manager, P.O. Box 429, Atlantic, IA 50022 or phone (712) 243-2850.

FOR SALE – Practice and building. Exceptional opportunity for one or two doctors. OB/GYN, family practice, internist. One block from hospital. Fully equipped. Newly decorated. Will sell on contract or lease. Call after 6 p.m., (812) 882-2063.

PEDIATRIC PARTNER NEEDED – Community: small town atmosphere, populous drawing area. School: national honors. Cultural: University town, 50 miles from Chicago. Economics: Greatest per capita income in state. Malpractice: Lowest rates in nation. Pediatric practice: 25 years, still expanding. Office: Spacious suite in four-year-old medical building, other specialties associated, lab and x-ray. Hospital: all services, superior neonatal unit. Send CV and practice goals to: Thomas J. Covey, M.D., F.A.A.P., 2101 Comeford Road, Suite 3, Valparaiso, IN 46383.

FOR SALE: Burdick 500 Elite EKG. Immediate interpretative printout. Essentially unused. \$6,000 new; asking \$3,000. (317) 873-5612.

FOR SALE: Busy, established family practice. Fully equipped. Will sell on contract. All inquiries confidential. Call Rick Johnson, (317) 927-8006.

KOKOMO, IND. - Emergency department physician position available Jan. 1, 1990. Full- or part-time positions available in a 150+ bed community hospital with 19,000 to 21,000 annual ED visits. For more information contact: David R. Gettle, M.D., St. Joseph Hospital and Health Center, Kokomo, IN 46902, (317) 456-5733.

RADIOLOGIST (board certified in 1982, licensed in Indiana) seeks practice in Indiana. Prefer solo position in small town but partnership considered. Experienced most modalities. Phone (619) 270-3166.

EMERGENCY PHYSICIANS WANTED - For Fayette Memorial Hospital in Connersville, Ind. Will consider all physicians with emergency medicine experience. 15,000 visits/year. Fee-for-service group does its own

billing. Hourly compensation based on training, experience and qualifications. Excellent fringe benefit package includes, life, health, disability and malpractice insurance plus CME allowance, ACEP and ISMA dues, pension plan and potential bonus. Contact: Michael D. Bishop, M.D., FACEP, Emergency Care Physicians, 640 S. Walker St., Suite A, Bloomington, IN 47403, (812) 333-2731.

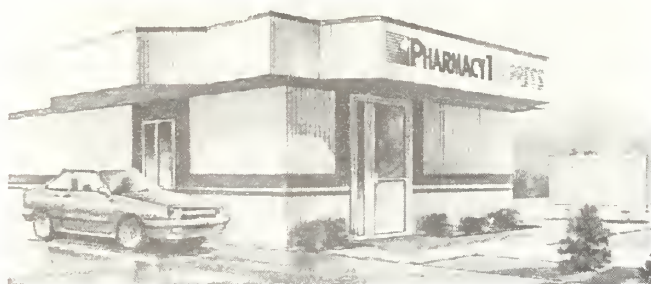
FAMILY PRACTICE - Hospital-sponsored clinic opportunity. Dynamic, growth-oriented hospital in beautiful north central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relo-

cation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435, (612) 835-5123.

FAMILY PHYSICIAN, general practitioner or internist wanted to join three-man group in west central Indiana. Competitive salary and percentage arrangement. Partnership arrangement possible after one year. Contact Frank Swaim, M.D., Parke Clinic, 503 Anderson St., Rockville, IN 47872, (317) 569-3182.

CENTRAL INDIANA - Physician-owned emergency group accepting applications for full-time, career-oriented emergency physicians. Flexible work schedules and excellent benefit package. Part-time and directorship positions also available. Send CV or contact Sherry Bussel, Midwest Medical Management, Inc., 528 Turtle Creek, N. Drive, Suite F-4, Indianapolis, IN 46227, (317) 783-7474. ▴

Franchise Investments



A SOLID PROVEN FIELD PHARMACEUTICALS

- Industry of recession proof record
- Absentee ownership management
- Merchandising high-margin product
- Customer-convenience concept in a specialized field

Franchise investment of \$139,500. Includes working capital. Minimum cash requirement. \$40,000 liquid capital is required.

The Pharmacy 1 Express store is a franchised turnkey operation designed around the customer-convenience concept of phone-in, drive-thru or walk-in express prescription service.



Call (317) 241-0124 for franchise information.
Contact: Scott Spence
V.P. Marketing/Sales

ISMA MEMBERS

What: 1990 Leadership Conference

When: Saturday, March 24

For more information, call Denise Le Doux at
(317) 925-7545 or 1-800-969-7545.

Advertising index

Affiliated Physicians Services	Cover
American Cancer Society	85
American Medical Television	87
Central Pharmaceuticals	23
International Tours	9
Jackson & Coker	2
Jason Pharmaceuticals	17
Lake Charlevoix	65
Lilly, Eli & Co.	18
Lincoln National Life	Cover
Medical Protective	5
Palisades Pharmaceuticals	6
Pharmacy 1 Express	94
Physicians' Directory	66
Physicians Insurance Co. of Indiana	Cover
Roche Laboratories	6, 7
Spectrum Emergency Care	85
University Microfilms	88
U.S. Air Force	23
U.S. Army Medicine	19
U.S. Army Reserve	65

In accepting advertising for publication, INDIANA MEDICINE has exercised reasonable precaution to ensure that only reputable, factual advertisements are included. However, we do not have facilities to make comprehensive or complete investigation, and the claims made by advertisers in behalf of goods, services, medicinal preparations, apparatus or physical appliances are to be regarded as those of the advertisers only. Neither sanction nor endorsement of such is warranted, stated or implied by the association.

Are you moving?

If so, please send change of address to the Indiana State Medical Association, Membership Department, 3935 N. Meridian St., Indianapolis, IN 46208, at least six weeks before you move.

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

County: _____

Office phone: _____ Home phone: _____

IMPORTANT - Attach mailing label from your last copy of INDIANA MEDICINE here:



If you recognize
Tad's father, you'll
recognize the
name of one
of the largest life
insurance companies
in America.

Lincoln. It's a name
you'll remember.

Benefits available to members of the Indiana State Medical Association and their employees through expanded ISMA group sponsored Lincoln National Life health insurance coverage:

MEDICAL PLAN 1

- 365 Days of Inpatient Hospital Care
- 100% payment semi-private or hospital ward room including the cost of blood
- 365 Days In-Hospital Medical Care
- Reasonable and Customary allowances for surgery, maternity, general anesthesia, medical visits, and radiation therapy
- \$500 Supplemental Accident
- Unlimited Major Medical Benefits

MEDICAL PLAN 2

- Comprehensive Major Medical expense protection — \$500 Calendar Year Deductible
- Unlimited Maximum Benefits

MEDICAL PLAN 3

- Comprehensive Major Medical expense protection — \$250 Calendar Year Deductible
- Unlimited Maximum Benefits

MEDICAL PLAN 4

- Low cost comprehensive Major Medical expense protection — \$2,000 Calendar Year Deductible
- Unlimited Maximum Benefits

MEDICAL PLAN 5

- Comprehensive Major Medical expense protection — \$250 Calendar Year Deductible
- Includes cost-containment features
- Unlimited Maximum Benefits

MEDICAL PLAN 6

- Comprehensive Major Medical expense protection — \$100 Calendar Year Deductible
- Includes cost-containment features
- Unlimited Maximum Benefits

MEDICAL PLAN 7

- Economical Comprehensive Major Medical expense protection — \$1,000 Calendar Year Deductible
- Unlimited Maximum Benefits

DENTAL PLAN

- Reasonable and Customary allowances for necessary care and treatment for dental health
- \$1,500 Maximum Dental Benefit per person in a Calendar Year

MEDICAL REIMBURSEMENT PLAN

- Tax Deductible to the professional corporation

The Lincoln National Life Insurance Company is most pleased to be underwriting the Group Medical and Dental Program for the Indiana State Medical Association. Your benefit programs have been designed to provide the highest quality coverage and service at the lowest possible cost. A special claim paying unit has been established in our Fort Wayne Regional Claims Office to handle only the ISMA program. Should you have questions or problems, you may speak directly to your claim processor at 800-348-4916. We look forward to serving your association and encourage your review of the program and services being provided.

For more information contact:

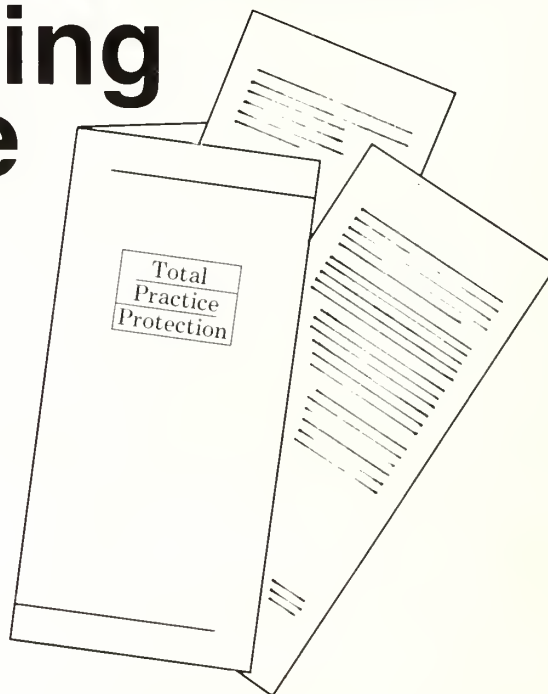
Earl W. Williams
Professional Account Representative
11595 N. Meridian St., Suite 802
Carmel, Indiana 46032
(317) 573-6520
1-800-421-3020 Indiana
1-800-428-7105 Other States

Tom Martens
Director, Health Insurance Administration
Indiana State Medical Association
3935 North Meridian Street
Indianapolis, Indiana 46208
(317) 926-4424
1-800-382-1721 Indiana

Possibly the most encouraging insurance news of the year.

Physicians Insurance
Company of Indiana
proudly presents

TOTAL PRACTICE PROTECTION.



Meet PICI's Total Practice Protection plan.
It will save time. It will save stress. It will save money.

All of your professional insurance needs in one package: Professional's Office Buildings; Professional Liability; Business Personal Property; Loss of Income; Money & Securities; Comprehensive Business Liability; Medical Payments; and other options including Worker's Compensation.

Call PICI's new hotline, 1-800-284-PICI for more information and the name of your nearest TPP independent agent.

Total Practice Protection from PICI; the benefits of logic.



PHYSICIANS INSURANCE COMPANY OF INDIANA

... by and for medical professionals

INDIANA MEDICINE

The Journal of the Indiana State Medical Association

February 1990

Vol. 83, No. 2



Myocardial Contusion

PLA COUNTY LIB OF MED
N F. JOURN OF MED
15 SHATTUCK STREET
BOSTON
MO 01111



The Doctor's Insurance Company. In More Ways Than One.

Physicians Insurance Company of Indiana (PICI) has a different approach to medical professional liability insurance. Indiana physicians serve on the Board of Directors, Underwriting and Claims Committees. PICI works closely with the Indiana State Medical Association. It talks with physicians. It listens to physicians. It understands. It cares. PICI really is the doctor's insurance company, in more ways than one.



**PHYSICIANS INSURANCE
COMPANY OF INDIANA**

8425 Woodfield Crossing Boulevard, Indianapolis, Indiana 46240
(317) 254-3970 • Toll Free 1-800-284-7424

INDIANA MEDICINE

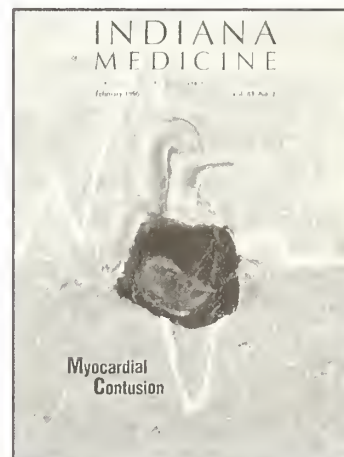
The Journal of the Indiana State Medical Association

February 1990

Vol. 83, No. 2

scientific contributions

CCM	
Myocardial contusion	106
RADIOLOGY CLINIC	
Wrist mass in an 18-year-old	112
Back pain: The primrose path - a case report	114
Iatrogenic arteriovenous fistula of the profunda femoris artery/vein: A case report	118
Relationship between physical aggression and chemistry	122



Cover story on page 106. Cover art by Brenda Kester, Medical Media Productions, Methodist Hospital of Indiana, Indianapolis.

features

Get the facts about malpractice insurance	126
Physicians may have more alternatives from which to choose, making the decision even more difficult.	
ISMA to sponsor one-day leadership conference	128
The ISMA will sponsor its 1990 Leadership Conference Saturday, March 24, at the Holiday Inn North in Indianapolis.	

departments

stethoscope	97
what's new	98
cme calendar	102
drug names	116
cme answers	127
message from the president	129
recent court rulings	130
guest editorial	132
book reviews	134
auxiliary report	136
isma leadership	157
news briefs	158
obituaries	159
people	160
classifieds	162

Why does JACKSON & COKER *recruit more physicians each year than any other company?*

- ☐ Largest pool of available physicians in the nation
- ☐ Network of 7 regional offices nationwide
- ☐ Expertise that produces unparalleled results in recruiting quality physicians
- ☐ Proven system that produced over 1,000 placements in the last 3 years.



**JACKSON
& COKER**

(800) 888-0121

With Regional Offices In:

ATLANTA-DENVER-PHOENIX
DALLAS-ST. LOUIS
PHILADELPHIA

INDIANA MEDICINE

Devoted to the interests of the medical profession and public health in Indiana since 1908.

EDITOR

Frank B. Ramsey, M.D.

MANAGING EDITOR

Tina Sims

EDITORIAL ASSISTANT

Toni Settle

BUSINESS MANAGER

Richard R. King

CIRCULATION

Dotty Martens

EDITORIAL BOARD

Elton Heaton, M.D.

Richard N. Dexter, M.D.

(Terms expire Dec. 31, 1991)

Robert L. Rudesill, M.D.

Robert C. Ziss, M.D.

(Terms expire Dec. 31, 1992)

Thomas J. Conway, M.D.

I.E. Michael, M.D.

(Terms expire Dec. 31, 1990)

Mike Agostino

Mark Rodefild

(Medical students)

CONSULTING EDITORS

Steven C. Beering, M.D.

Charles A. Bonsett, M.D.

Alvin J. Haley, M.D.

Rodney A. Mannion, M.D.

Alan T. Marty, M.D.

W.D. Snively Jr., M.D.

INDIANA MEDICINE (ISSN 0746-8288) is published monthly by the Indiana State Medical Association. Second-class postage paid at Indianapolis, Ind., and additional mailing offices.

Address correspondence relating to editorial material, advertising or subscriptions to: INDIANA MEDICINE, 3935 N. Meridian St., Indianapolis, IN 46208. Phone (317) 925-7545 or 1-800-969-7545 (in Indiana only).

Annual subscription rates for nonmembers: \$24 domestic, \$26 Canada, \$27 foreign. Medical library rates: \$22 domestic, \$23 Canada, \$24 foreign. Full-time Indiana medical students: \$12. Single copies not available. Subscriptions are renewable annually.

POSTMASTER: Send address changes to INDIANA MEDICINE, Indiana State Medical Association, c/o Membership Department, 3935 N. Meridian St., Indianapolis, IN 46208.

Views expressed do not necessarily reflect the opinions of the editors. No copyright is claimed, unless specifically indicated. Copyright rests solely with authors, who are responsible for statements in their articles. Scientific and editorial contributions are accepted for exclusive publication, subject to editorial requirements. Instructions for authors available upon request.

All issues since 1967 are available on microfilm from University Microfilms International, 300 N. Zeeb Road, Ann Arbor, MI 48106. Indexed in *Index Medicus* and *Hospital Literature Index*.

Advertising rates and data available upon request. INDIANA MEDICINE reserves the right to accept or reject advertising copy.

ISMA begins development of Medical Explorer program

Throughout February and March, ISMA field representatives will be informing physicians in their districts about the establishment of Medical Explorer Scout posts. This division of Boy Scouts of America is designed to give young men and women ages 14 through 20 an opportunity to look into careers in medicine while participating in worthwhile activities resulting in good character, citizenship and fitness. The ISMA is attempting to develop interest in the program to implement Resolution 89-19, adopted at the 1989 annual meeting and proposed by George H. Rawls, M.D. Four regional informational meetings for interested ISMA members are scheduled during April. More information on this program is found in a Message from the President on page 129 of this issue.

Medicare seminars open to doctors, office personnel

ISMA-sponsored Medicare seminars are scheduled throughout the state for 1990. Dates and locations of meetings are: May 30 or 31, Anderson, Holiday Inn; June 20, Lafayette, Howard Johnson's; July 18, Merrillville, 86th Place; July 19, South Bend, Marriott; Aug. 15, Fort Wayne, Guesthouse; Sept. 12, Terre Haute, Holiday Inn; Oct. 17, Evansville, Ramada Inn; Oct. 18, Jeffersonville, Ramada Inn-Riverside; and Nov. 14, Columbus, Holiday Inn. The seminars are designed for physicians and medical office personnel. The fee is \$100 per person for ISMA members and their staff members and \$150 for non-members and their staff members. For registration information, call Tina Dillard, ISMA Medicare reimbursement coordinator, (317) 925-7545 or 1-800-969-7545.

Newspaper interviews Rawls for story on malpractice act

George H. Rawls, M.D., ISMA president, was interviewed for a story on the Indiana Medical Malpractice Act that will be published in *The Indianapolis Star*. The story, which will appear sometime in February or March, will be the result of research and interviews conducted by two investigative reporters since July 1989. The reporters are looking specifically at the cap and physician discipline. Because of physician concerns about the possible impact of this story when it is published, the ISMA is prepared to draft a letter in response to the article.

Monthly publication offers information on AIDS care

Physicians interested in the most current information on AIDS may subscribe to *AIDS Clinical Care*, a monthly publication of the Medical Publishing Group, a division of the Massachusetts Medical Society. The publication was founded in cooperation with the American Foundation for AIDS Research. The subscription rate is \$80 per year. To order, write *AIDS Clinical Care*, P.O. Box 9085, Waltham, MA 02254-9085 or call 1-800-843-6356. □

■ what's new

The Primedic Division of **GMG Enterprises Inc.** has introduced a portable defibrillator cardiac resuscitation unit with a 7.6 second charging time and simple and logical operating procedures for use in emergencies. The new Primedic⁺ Defibrillator-N comes in a compact, impact-resistant plastic housing for optimum mobility and use in seconds.

Hewlett-Packard Co. has introduced Arrhythmia Software Release 3.0 with both algorithm and feature enhancements for the HP 78720B arrhythmia monitoring system. Release 3.0 enhancements include bedside-alarm validation, increased alarm and event storage, recording of stored waveforms, selective disabling of yellow alarm recordings and algorithm enhancements.

Wampole Laboratories is offering new Zeus Scientific ELISA Test Systems. Assays available include toxoplasma, rubella, CMV, HSV and lyme and come in a 96-test kit featuring a microplate containing eight-well strips. All tests have identical incubation times of 20, 20 and 10 minutes.

Abbott Laboratories has introduced TestPack Plus, an office pregnancy test that provides results within five minutes. From three drops of urine, the test accurately measures levels of human chorionic gonadatropin hormone. An unequivocal plus or minus

readout appears on the small test reaction disc to denote a positive or negative result.

Hewlett-Packard Co. has introduced the HP M1025A anesthetic gas analyzer for patient monitoring during surgery. The analyzer is based on a new technology that uses acoustics for precise measurement of the concentration of anesthetic gases and agents used during surgical procedures.

T Cell Sciences Inc. announced that the U.S. Food and Drug Administration approved the company's Premarket Approval application to market its Cellfree[®] Interleukin-2 Receptor Bead Assay Kit for use as an aid in evaluating and monitoring response to treatment in hairy cell leukemia patients.

Fire Prevention Through Films Inc. is offering five audio-visuals that provide in-service education to staffs of health care facilities. The films are available in 1/2-inch VHS and 3/4-inch U-matic video formats and may be rented or purchased.

News of what is new in the medical supply industry is composed of abstracts from news releases. Each item published does not necessarily constitute an endorsement of a product or recommendation for its use by INDIANA MEDICINE or by the Indiana State Medical Association.

The Channing L. Bete Co. Inc. has published *About Condoms and Safer Sex*, a booklet that educates readers about the correct use of condoms and how to help prevent AIDS and other sexually transmitted diseases. The booklet contains information on why condoms make sex safer and the importance of talking with one's partner about condoms and safer sex.

Wampole Laboratories has announced the availability of polyvalent and monovalent test kits that detect the antibody to *B. burgdorferi* (Lyme). The Zeus Scientific Lyme test is designed for the simultaneous detection of IgG and IgM antibodies. Test kits also are available to test specifically for the presence of IgG or IgM antibodies. Each kit contains 10-well slides, conjugate, controls, PBS and Mounting Media to run 100 tests.

The Institute for Scientific Information announced that its new *Current Contents on Diskette - Clinical Medicine*, for use with personal computers, is now available. This edition is a weekly information data base designed to meet the needs of medical practitioners and clinicians. It gives them access to the contents pages of more than 850 important journals in clinical medicine and the ability to obtain copies of articles with ISI's Request-A-Print[®] feature. □

DISPENSE AS WRITTEN

DAW

MD. *INDIANA*

The practice is yours.
The patients are yours.
The prescriptions are yours.
Make the prescribing decision yours, too.

Sign on the left on the
"Dispense as written" line.

Specify

VALIUM
brand of
diazepam/Roche®

The cut out "V" design is a registered trademark of Roche Products Inc

The one you know best.



scored tablets

ROCHE Roche Products

YOCON[®]

YOHIMBINE HCl

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubiaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors; its effect on blood pressure, if any, would be to lower it, however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon[®] is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.^{1,2} Also dizziness, headache, skin flushing reported when used orally.^{1,3}

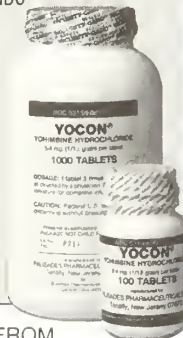
Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.^{1,3,4} 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.³

How Supplied: Oral tablets of Yocon[®] 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

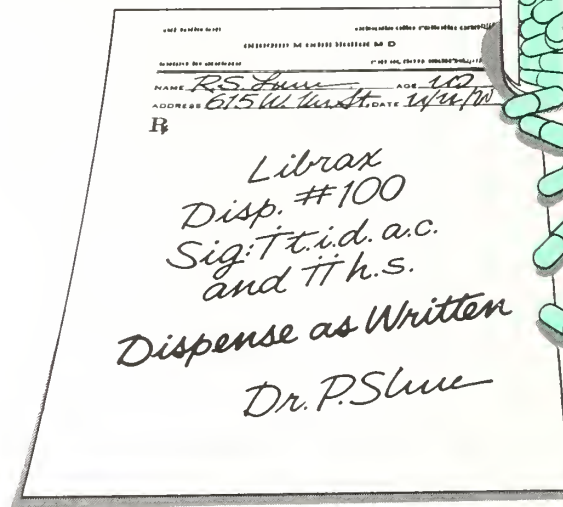
1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85



AVAILABLE EXCLUSIVELY FROM
**PALISADES
 PHARMACEUTICALS, INC.**
 219 County Road
 Tenafly, New Jersey 07670
 (201) 569-8502
 1-800-237-9083

Specify Adjunctive LIBRAX[®]



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium bromide.

Please consult complete prescribing information, a summary of which follows:

- * **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
 "Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
 Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur. Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazepines (see Drug Abuse and Dependence).

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug. **Adverse Reactions:** No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncop reported in a few instances. Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuance of chlordiazepoxide; more severe seen after excessive doses over extended periods, milder after taking continuously at therapeutic levels for several months. After extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence.

P.I. 0288

ROCHE Roche Products

Roche Products Inc.
 Manati, Puerto Rico 00707

IN

To insist on the brand, be sure to sign on the "Dispense as Written" line of your prescription.

In IBS,* when it's brain versus bowel,

IT'S TIME FOR THE PEACEMAKER.

In irritable bowel syndrome,* intestinal discomfort will often erupt in tandem with anxiety—launching a cycle of brain/bowel conflict. Make peace with Librax. Because of possible CNS effects, caution patients about activities requiring complete mental alertness.

*Librax has been evaluated as possibly effective as adjunctive therapy in the treatment of peptic ulcer and IBS.

Specify Adjunctive

LIBRAX[®]

Each capsule contains 5 mg clordiazepoxide HCl and 2.5 mg clidinium bromide.

ROCHE

■ cme calendar

Indiana University

The Indiana University School of Medicine will sponsor the following courses:

- Feb. 16-17** – 22nd Annual Meeting of the Frank Walsh Society, University Place Executive Conference Center and Hotel, Indianapolis.
- Feb. 23-24** – Winter Meeting, Indiana Chapter, American College of Surgeons, Columbia Club, Indianapolis.
- Mar. 8** – Infant Mortality Teleconference, University Place Executive Conference Center and Hotel in Indianapolis and at statewide Medical Television Network viewing sites.
- Mar. 16** – Current Diagnosis and Management of Epilepsy, University Place Executive Conference Center and Hotel, Indianapolis.
- Mar. 23** – Update in Occupational Lung Disease, University Place Executive Conference Center and Hotel, Indianapolis.
- Mar. 24-25** – Annual Meeting, Indiana Society of Anesthesiologists and Anesthesia Update, University Place Executive Conference Center and Hotel, Indianapolis.
- Apr. 6** – Update in Critical Care Medicine, Vigo County Public Library, Terre Haute, Ind.
- Apr. 6-7** – Risk Factors and Atherosclerosis, Indi-

ana University Medical Center, Indianapolis.

- Apr. 23-27** – Electrocardiographic Interpretation of Complex Arrhythmias: A Physiological Approach, Kranert Institute of Cardiology, Indiana University Medical Center, Indianapolis.

For information, call Melody Dian, assistant director, CME, (317) 274-8353.

Methodist Hospital

Methodist Hospital of Indiana will sponsor the following CME courses:

- Mar. 2-3** – Fifth Perinatology Symposium (Neonatal Resuscitation Hospital Instructor Course – Optional), Methodist Hospital, Petticrew Auditorium, Indianapolis.
- Mar. 3** – Bird's Nest Vena Cava Filter Workshop, Hilton-on-the-Circle, Indianapolis.
- Mar. 9** – Diabetes Update – 1990, Methodist Hospital, Petticrew Auditorium, Indianapolis.
- Mar. 9-10** – Advanced Cardiac Life Support, Methodist Hospital, Wile Hall, Indianapolis.
- Mar. 16** – Mild Head Injury, Methodist Hospital, Petticrew Auditorium, Indianapolis.
- Mar. 30-31** – Advanced Trauma Life Support, Methodist Hospital, Indianapolis.
- Apr. 28** – Cardiology Update: Current Concepts in Primary Care, Meth-

odist Hospital, Petticrew Auditorium, Indianapolis.

For more information, contact Dixie Estridge, (317) 929-3733.

St. Mary's Medical Center

St. Mary's Medical Center in Evansville will sponsor the following courses:

- Mar. 8** – The MacKenzie Seminar: Pelvic Infections – Internal and External.
 - Apr. 5** – The Geriatric Seminar: The Slowing Necessities.
 - Apr. 26** – Pediatric Cholesterol.
- All courses will begin at 1 p.m. at St. Mary's Medical Center. For information, contact W. Thomas Spain, M.D., St. Mary's Medical Center, 3700 Washington Ave., Evansville, IN 47750, (812) 479-4468.

University of Kentucky

The University of Kentucky College of Medicine will sponsor the following courses:

- Feb. 25** – 21st Family Medicine Review – Session I, (course runs until March 2).
- Mar. 30-31** – Contemporary Pediatrics for the Practicing Physician.
- Apr. 6-7** – Aggressive Management of Diabetes and Obesity.
- Apr. 27-28** – Sports Medicine for Physicians.

All courses will be held at the Hyatt Regency Hotel in Lexington, Ky. For additional conference information, contact Susan Gilson, Conference Coordinator, University of Kentucky, College of Medicine Office Building, Lexington, KY 40536-0086, (606) 233-5161. ■

MORE THAN

250,000

PATIENTS
HAVE
ENJOYED
HEALTH
BENEFITS
RESULTING
FROM
MEDIFAST.

MORE THAN

10,000

PHYSICIANS
PRESCRIBE
MEDIFAST
WITH
CONFIDENCE.

MORE THAN

10

YEARS OF
DEDICATED
SERVICE
TO THE
MEDICAL
PROFESSION.

No Other Physician-Supervised Weight Control Program Delivers This Winning Combination
...and that makes Medifast #1

Physician-Supervised Protein-Sparing Modified Fast For the Safe • Rapid • Medical Treatment of Obesity

Doctor, one of every four of your patients has overweight problems that need medical help...the help of Medifast®.

A comprehensive program for rapid weight loss *and* lifelong weight control, Medifast has proven itself. For more than 10 years! To more than 10,000 physicians! To more than 250,000 patients!



TRAINING MANUALS

Medifast will work for you, too. Patients lose weight with a program of physician-supervised modified fasting and behavior modification. And they keep it off with our exclusive *LifeStyles* Program.

The Medifast Program includes:

- ★ **Training** – Comprehensive training manuals written by physicians, for physicians. Address all clinical and administrative aspects.
- ★ **Medifast Supplements** – Extremely high quality. Medically formulated.

Nutritionally complete.

★ **LifeStyles** – The Medifast Program of Patient Support™. Teaches patients the way to long-term weight control and healthful living.

★ **Clinical Consultation** – Medical and technical support specialists available daily at our toll-free number.

★ **Practice Promotion Portfolio** – Complete with marketing ideas, office displays, posters, waiting room brochures, and advertising.

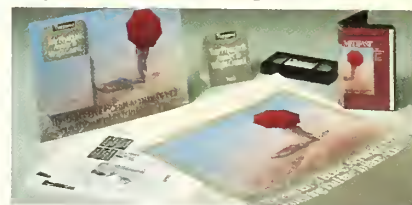
★ **National Consumer Ad Campaign** – Builds public awareness, creates referrals.



LifeStyles: PATIENT SUPPORT

You know, Doctor, that more traditional methods of weight reduction are simply ineffective. And, severe overweight threatens your patient's health. Primary Care Physicians of every specialty recognize Medifast to be an important addition to their

prescribed therapy and an effective way to increase their patient base.



PROMOTION PORTFOLIO

For complete information call toll-free

1-800-638-7867

For more information about the Medifast Program, please send this coupon to:

The Nutrition Institute of Maryland
William J. Vitale, M.D.
Director, Clinical Services
1840 York Road, Suite H
Timonium, MD 21093

NAME _____

ADDRESS _____

CITY _____

STATE _____

ZIP _____

PHONE _____

SJG-12

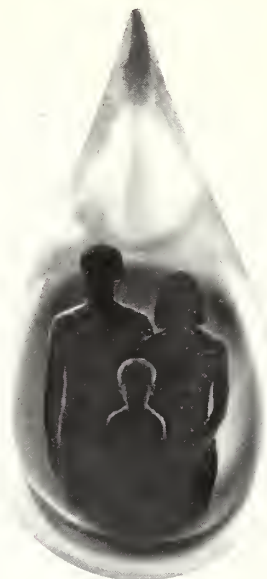


The Physicians' Answer to Weight Control.

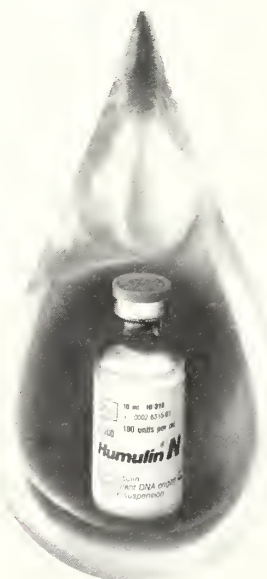
For treatment of diabetes:

Introducing
Humulin[®] 70/30
70% human insulin isophane suspension
30% human insulin injection
(recombinant DNA origin)

REPLACE Human Insulin

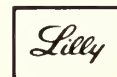


With Human Insulin

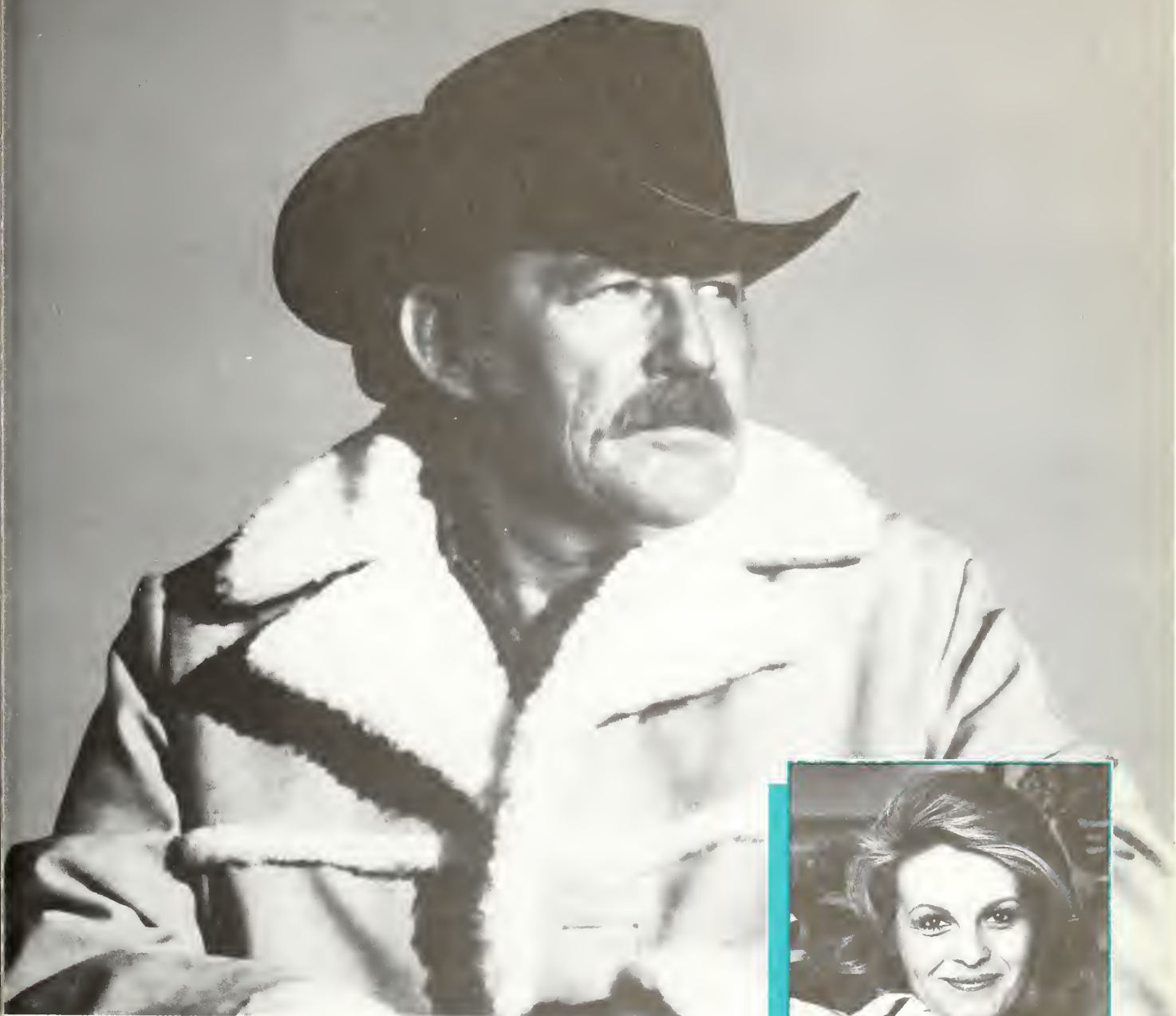


Humulin[®] 
human insulin
(recombinant DNA origin)

*Any change of insulin should
be made cautiously and only
under medical supervision.*



Leadership
In Diabetes Care



Dosing Flexibility

 **Android**[®] / 5^{Buccal} / 10^{Oral} / 25^{Oral}
mg mg mg

Methyltestosterone U.S.P. Tablets

 **ANDROID**[®] / F

Fluoxymesterone U.S.P. Tablets, 10 mg.



For Full Prescribing
Information,
Please See PDR.

Myocardial contusion



ADULT CRITICAL CARE MEDICINE

Methodist
Hospital OF INDIANA, INC.

Larry T. Micon, M.D.
George H. Rodman Jr., M.D.
Indianapolis

Myocardial contusion is an often contemplated yet dubious diagnosis following blunt chest injury. The scientific data base describing myocardial contusion was summarized in 1954 as follows: "And always with a heart contusion arise both doubt and much confusion."¹

Since that time, there has been dramatic progress in trauma and critical care, cardiac imaging and enzymology. Despite these advances, however, the diagnosis and management of blunt cardiac trauma remain controversial.

This article addresses the evaluation, treatment and prognosis of blunt trauma victims with potential cardiac injury.

Blunt cardiac injury

Blunt cardiac trauma may produce a spectrum of injuries ranging from merely blood enzyme or electrical abnormalities to frank chamber and valvular rupture. Cardiac concussion is an ill-defined term pertaining to a mild dissipation of force over the heart with no cellular damage and therefore no cardiac enzyme release.² Contusion (*Figure 1*) involves cellular disruption with extravasation of erythrocytes and patchy necrosis of myocardial fibers.

As defined above, the clinical distinction between these two entities is the serum creatine phosphokinase. Myocardial con-

tusion, not concussion, will have a detectable blood level of creatine phosphokinase myocardial isoenzyme (CPK-MB).

Cardiac valvular disruptions from blunt trauma are unusual, with the aortic and mitral valves most frequently involved. Coronary artery injury is rare.^{2,3} Myocardial rupture is seen rarely in the clinical setting because most injuries cause sudden death at the accident scene. Autopsy cases of accident victims show that the right ventricle is the most common chamber ruptured. Ventricular septal rupture also has been reported and successfully managed.^{4,5}

Pericardial effusion and/or hemopericardium can accompany any blunt cardiac injury with or without the hemodynamic signs of tamponade. Rupture of the pericardium has been observed as may allow cardiac herniation with hemodynamic instability from diminished venous return.⁶

From this range of blunt cardiac injuries, myocardial concussion and contusion are encountered most frequently and create the greatest controversy. These entities will be considered together for the rest of this article because the ability to distinguish them reliably is lacking and of little clinical value. While much of the controversy centers on the most appropriate diagnostic studies and intensity of management in stable patients, even the incidence is disputed. Clinical series of blunt trauma victims have variably described myocardial contusion to occur in 6% to 76% of patients.⁷

Diagnosis

Clinical presentation will dictate the level of suspicion regarding blunt cardiac injury but alone lacks sensitivity or specificity. Myocardial injury may occur following acute decelerations of 20 miles per hour or less.⁸ Most such patients do have symptoms, physical findings and radiographic evidence of thoracic trauma.⁹ However, significant cardiac injury may present with an absence of any clinical markers raising suspicion, indicating a need for more sensitive screening tests.

Electrocardiography

Electrocardiography (ECG) is a convenient, rapid, inexpensive and widely available screening test for cardiac injury. ECG abnormalities include sinus tachycardia (ST), ST segment and T wave changes, premature atrial or ventricle contractions, right bundle branch block, bifascicular block, first-, second- and even third-degree heart block. Q waves are infrequent, presumably because transmural contusions are rare.

The sensitivity of the 12-lead ECG for detecting myocardial contusion is less than perfect, however, as patients with autopsy-confirmed myocardial contusions frequently have normal ECGs.¹¹ Likewise, the specificity is limited as ECG abnormalities are common following blunt trauma even in the absence of obvious myocardial damage.^{11,12,13} These may be due to hypoxemia, electrolyte imbalance, acid-base disorder, ischemia, anemia or dysautonomia. These ECG shortcomings may result because the ECG records the electrical events of the left ventricle primarily, while the right ventricle is more

commonly injured by blunt force due to its more anterior location. The addition of right precordial leads to ECG testing has failed to add diagnostic sensitivity.¹⁴

Cardiac enzymes

Cellular enzyme release, most notably creatine phosphokinase isoenzyme MB, is a reliable indicator of ischemic cardiac injury.¹⁵ Logically, the monitoring of CPK-MB has extended to blunt trauma victims. However, the diagnostic accuracy of the serum CPK-MB in cardiac trauma is limited.

Potkin has reported normal isoenzyme values in four of five patients with autopsy-confirmed myocardial contusions.¹³ Others have noted no correlation between CPK-MB values and noninvasive cardiac imaging.^{14,16,17} Furthermore, noncardiac sources of CPK-MB (i.e., from skeletal muscle) may result in false-positive assays.^{2,18,19} These facts severely limit the clinical use of cardiac enzyme determinations following trauma.

Radionuclide scans

Radionuclide scans developed for confirming the diagnosis of myocardial infarction have been used in patients suspected of having myocardial contusion. Technetium pyrophosphate (^{99m}TcPYP) binds mitochondrial hydroxyapatite exposed by myocardial cell death, making this tracer reliable for detecting infarcted myocardium.²⁰ When applied to cardiac trauma, however, the technetium pyrophosphate scan has been disappointing. Potkin reported negative ^{99m}TcPYP scans in five patients with autopsy-confirmed myocardial contusions. Others have demonstrated the limitation of ^{99m}TcPYP in blunt trauma victims as well.^{21,22,23} Pro-

posed explanations for these observations include inconsistent detection of partial thickness injury (which most myocardial contusions are) and proximity of the anterior heart to the sternum, which also accumulates the tracer (Figure 2).

Single-photon-emission computer tomography (SPECT) applies computer processing and digital signal reconstruction technology to myocardial scanning, yielding improved diagnostic accuracy (Figure 3).²⁴ The isotope generally used is thallous chloride (Tl 201), a potassium analogue that is taken up by normal myocardial cells. Waxman studied 123 blunt trauma patients with SPECT scans, 61% of which were positive. Serious arrhythmias were encountered in 11 patients (14.6%) in the scan positive group versus three patients (6.2%) in the scan negative patients. All three patients developing arrhythmias in the scan negative group had previous



Figure 1: Gross autopsy specimen with myocardial contusion.

cardiac histories. Thus, in this study, no patient with a negative SPECT scan and no prior cardiac history developed a serious arrhythmia.²⁵

SPECT scanning, however, images only the left ventricle adequately. Therefore, it will not detect abnormalities on the right side of the heart, the most com-



Figure 2: Technetium pyrophosphate scan demonstrating myocardial injury (arrow).

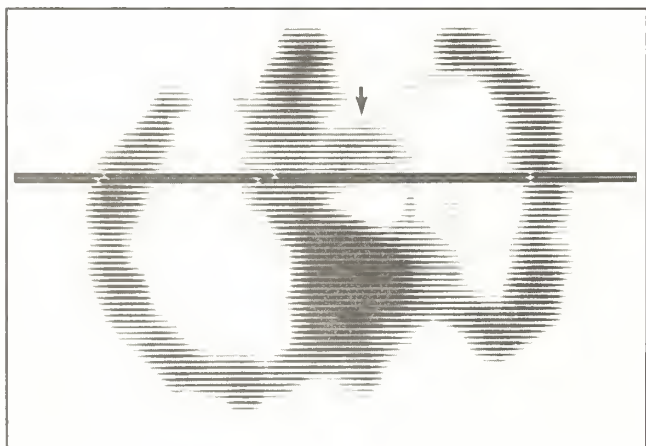


Figure 3: Single photon emission computer tomogram (SPECT) demonstrating myocardial injury (arrow).

mon site for myocardial contusion. Further clinical studies are required to properly define the role of SPECT scanning in the diagnosis of myocardial contusion.

Gated radionuclide angiography (RNA) is a third nuclear scan used for myocardial imaging. Red cells labelled with technetium-99-sodium pertechnetate are injected and allow evaluation of right and left ventricular wall motion. Ejection fractions may be calculated as well. Myocardial dysfunction is detected as a segmental wall motion abnormality or a diminished ejection fraction (implying global ventricular dysfunction). RNA has been used to diagnose traumatic myocardial contusion. Unfortunately, this scan also has correlated poorly with other diagnostic tests. RNA has failed to predict those trauma victims at risk for subsequent cardiac morbidity. Thus, the use of RNA following blunt trauma also is limited.^{23,26}

Echocardiography

Two-dimensional echocardiography is a convenient, portable and widely available method of cardiac imaging. It offers several advantages compared to other diagnostic tools because it evaluates both ventricles, detects pericardial blood or other fluid, examines valve integrity and identifies mural thrombus.

Echocardiography has been applied to the acute evaluation of blunt trauma victims. Segmental wall motion defects and right ventricular dilation are findings suggestive of myocardial contusion. Patients with significant echo abnormalities may be at higher risk for developing arrhythmias in the early postinjury period.^{27,28} The test itself, however, is highly examiner-dependent. Therefore, the reliability is variable. Like other diagnostic techniques, it is unable to determine the age of wall motion defects. Despite these reservations, echocardiography may well be the imaging method of choice following blunt cardiac trauma because it is convenient and yields the broadest scope of information.

Clinical implications

Patients with potential myocardial contusion are identified by the history and initial evaluation. Patients experiencing acute deceleration from more than 20 miles per hour or falls from more than 20 feet are at risk for significant visceral injury.^{29,30}

The clinically important complications of myocardial contusion are ventricular failure and arrhythmia. Stable patients with myocardial contusion are at risk for arrhythmias, with the incidence variably reported from 0% to 73%.^{2,9,27,31,32} Most patients who develop

arrhythmias do so early in their hospital course. Other ECG abnormalities are of little consequence and usually normalize rapidly.

There is no gold standard diagnostic test for myocardial contusion. The information gleaned from this myriad of studies is, at best, incomplete. The challenge is to develop a cogent plan of diagnosis and management based on the available clinical data. One

rational approach is presented in the *Table*.

Unstable patients

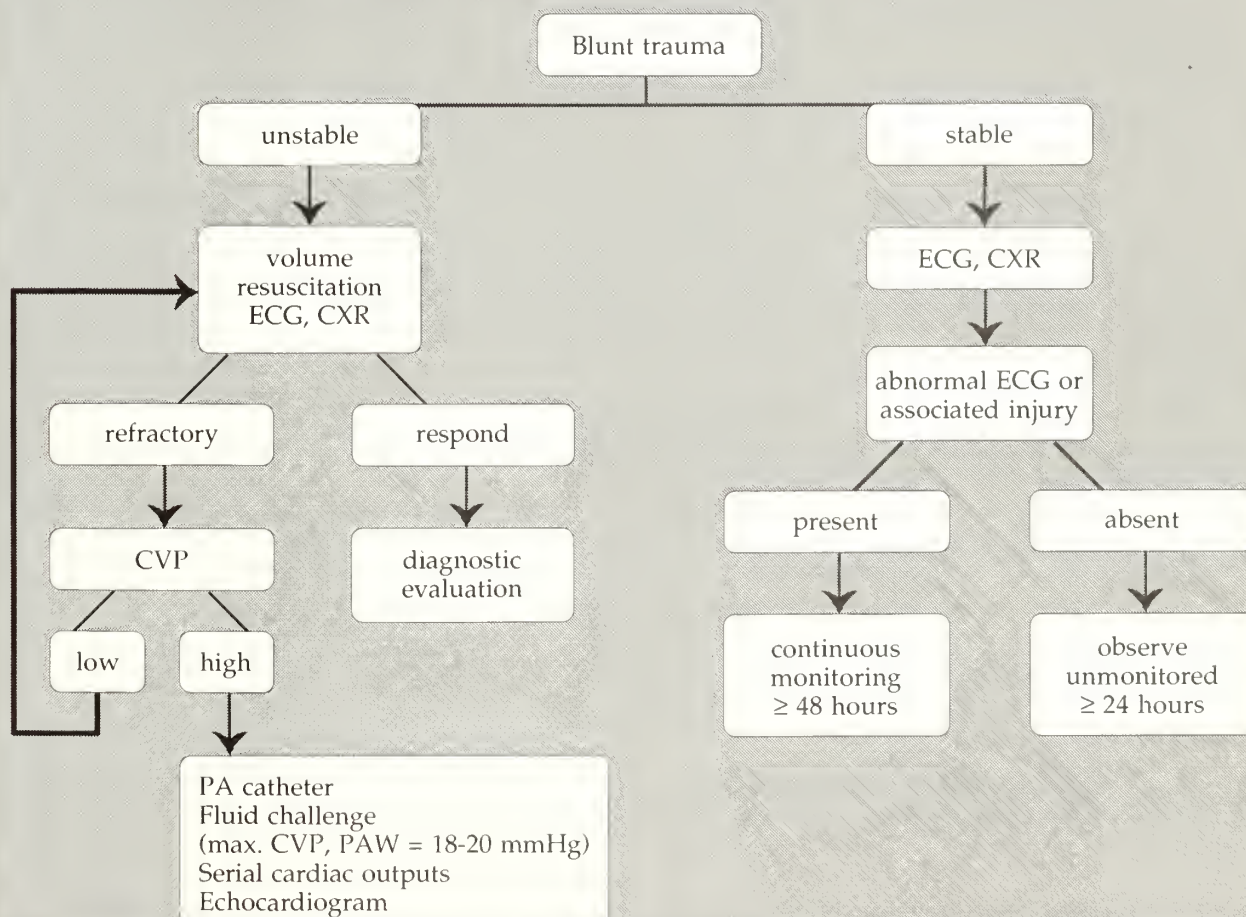
Patients with hemodynamic instability following trauma should be volume resuscitated for presumed hemorrhagic shock. The initial evaluation should include an ECG and chest x-ray. Patients refractory to volume infusion require further evaluation by neck vein examination and direct

measurement of central venous pressure (CVP). If elevated, myocardial contusion should be considered as well as tension pneumothorax, pericardial tamponade, myocardial infarction, cardiac valvular disruption and coronary air embolism.

The physical examination, chest x-ray and 12-lead ECG may reveal the cause of shock. Otherwise pulmonary artery catheterization, hemodynamic profile assessment

Table

Myocardial contusion management algorithm



and echocardiography should be performed. The echocardiogram is used to exclude pericardial tamponade and cardiac valvular abnormalities as well as to identify segmental wall motion defects and global ventricular hypokinesis.

Should a diagnosis of cardiogenic shock be confirmed by these studies, judicious volume resuscitation is accomplished. Right ventricular failure may predominate, causing high CVP but normal or low pulmonary artery capillary wedge pressure (PAW). Both the CVP and PAW should be monitored. Serial fluid challenges should be administered to raise the CVP or PAW to a maximum of 18 to 20 mmHg, while monitoring the cardiac output and oxygen delivery response. If perfusion remains inadequate, inotropic agents are initiated and again titrated against the hemodynamic response. Occasionally, afterload reduction may be of benefit in this setting. Intra-aortic balloon counterpulsation can be used to support cardiac function in trauma victims refractory to the above maneuvers.^{9,29}

Stable patients

Hemodynamically stable patients following blunt trauma require an expeditious but thorough examination to determine the

extent of injury. A baseline ECG and chest x-ray should be obtained during the initial evaluation. Patients at risk for serious arrhythmias from a myocardial contusion generally are identified by ECGs and associated injuries.^{27,33,34} The presence of high-degree atrioventricular block, right or left bundle branch block, supraventricular or ventricular arrhythmia on initial ECG warrants continuous monitoring.

The presence of associated injuries also may require observation and continuous rhythm monitoring in a critical care area. In the absence of these conditions, observation in an unmonitored hospital area is adequate. Serial CPK isoenzymes, nuclear scans or echocardiograms are of little value in the early evaluation or management of stable patients.^{13,16,17,34}

The prognosis following myocardial contusion is good. Mortality from cardiac contusion is rare.^{9,14,17,32,33} In contrast to myocardial infarction, urgent surgery can be accomplished with very low cardiac-related morbidity. Necessary surgical procedures should not be delayed. Patients should, however, be appropriately resuscitated and monitored for such procedures. This typically entails pulmonary artery catheterization and serial hemodynamic profile analysis during the perio-

perative period.

Conclusion

Confirming a diagnosis of myocardial contusion remains difficult due to inherent limitations of current diagnostic modalities. Patients at risk can be identified by the clinical presentation. The hemodynamically unstable patient requires an efficient evaluation to confirm cardiogenic shock followed by aggressive hemodynamic management. The stable patient is triaged to continuous monitoring or routine hospital observation on the basis of the ECG and any associated injuries. Serial cardiac enzyme monitoring and nuclear scans are now of little value in diagnosis or management. □

Dr. Micon is medical director of Trauma Service and Dr. Rodman is director of the Emergency Medicine and Trauma Center at Methodist Hospital of Indiana in Indianapolis.

Correspondence and reprints: Larry T. Micon, M.D., Medical Director, Trauma Service, Methodist Hospital of Indiana, 1701 N. Senate Blvd., P.O. Box 1367, Indianapolis, IN 46206.

For a list of references, write INDIANA MEDICINE, 3935 N. Meridian St., Indianapolis, IN 46208.



FLORIDA, SAN DIEGO, LAS VEGAS, Other Vacations For Less Than \$500

TAMPA-CLEARWATER – 5 nights at Holiday Inn Clearwater Beach Gulfview. Package includes: Roundtrip air on USAir, hotel, rental car. **\$440** 7 nights **\$536**

SAN DIEGO – 3 nights at your choice from among several outstanding hotels. Package includes: Roundtrip air on USAir, rental car with unlimited mileage, and hotel plus other features. **\$441**

LAS VEGAS – 3 night package at famed Riviera Hotel. Package includes: Roundtrip air on USAir, airport transfers and hotel. (Thursday departures) **\$365**

ORLANDO – 4 nights at Sheraton Lakeside Inn. Package includes: Roundtrip air on USAir, rental car, hotel, & 4-day pass to Disney, EPCOT or MGM. **\$565** 3 nights with 3-day pass **\$486**

PHOENIX GOLF PACKAGE – 7 nights at Resort Suites of Scottsdale. Package includes: Roundtrip air on USAir, luxury car or van, 5 rounds of golf with cart and starting time at: Tournament Players Club, Orange Tree C.C., McCormik Ranch, Scottsdale C.C. **\$1028** through 4-21-90 (Lower prices after that. Also, lower rates for non-golfing spouses.)

MYRTLE BEACH GOLF PACKAGE – 3 nights at Radisson Resort. Package includes: Roundtrip air on USAir, 3 rounds of golf on your choice of over 50 championship courses, daily breakfast, taxes & gratuities. March 10-31 – **\$440**; April 1-June 1 – **\$464** (Thursday & Friday departures)

CRUISES – Minimum of \$50 off per cabin on all 7-day cruises, \$25 off on 3 and 4-day cruises. Much larger discounts on many cruises. Contact us for specials.

All prices are per person, double occupancy. Airfares are from Indianapolis. Prices are based on airfares at time ad was prepared and are subject to change. Air fares may require a minimum of 14 days' advance purchase. All vacations are subject to availability.

INTERNATIONAL TOURS TRAVEL AGENCY

(Official travel agency for the Indiana State Medical Association)

5420 Southern Avenue Suite 100

Indianapolis, IN 46241

Telephones: Indianapolis – 244-3341; Indiana – 1-800-237-6311

EVERY AIRLINE TICKET AND CRUISE DISCOUNTED TO ISMA MEMBERS

Wrist mass in an 18-year-old

Ryo Eun Choi, M.D.
Frederic E. Vanbastelaer, M.D.
Indianapolis

An 18-year-old man had a slowly growing, 3-cm diameter mass of the volar aspect of his left

forearm. The mass had been present for about three years, and it was not painful.

A ganglion was suspected, but on physical examination, the mass was hard. The remainder of the physical examination and all the laboratory values were normal. A

radiograph was obtained (Figures 1A and 1B). Excisional biopsy was performed.

Diagnosis: Periosteal chondroma

The differential diagnosis includes post-traumatic myositis ossificans, parosteal osteosarcoma



Figure 1A: AP view of the wrist demonstrates a round, calcified soft tissue mass adjacent to the distal radial metaphysis.



Figure 1B: A lateral radiograph shows the amorphous pattern of calcification of the mass. Notice that there is scalloping of the volar surface of the distal radius due to pressure erosion by the mass.

and parosteal chondrosarcoma. Although giant cell tumor of tendon sheath (pigmented villonodular synovitis) may cause scalloped periarticular erosion, such as seen in the radius in this case, pigmented villonodular synovitis does not calcify.

At surgery, the tumor was surrounded by a white fibrous capsule, and there was no continuity with the adjacent bone. Grossly, the tumor consisted of a cartilaginous cap surrounding a central stalk. Histologically, the lesion was a cartilaginous tumor with a lobular arrangement of chondrocytes and foci of enchondral ossification and dystrophic calcification. The surface was lined by intact periosteum.

Periosteal chondroma is a slowly growing, benign cartilaginous tumor that develops beneath the periosteal connective tissue. It characteristically erodes and induces sclerosis of adjacent cortical bone.⁴ The tumor frequently occurs adjacent to a joint. It also occurs near the metaphysis of long bones, such as the radius in this patient, but it also has been described in the small bones of the hands and feet.³ In two patients, multiple periosteal chondromas have been described.⁵

Periosteal chondromas are most frequently seen in patients between the ages of 10 and 30. There is no racial or sex predilection. As in our patient, most of these tumors present as painless masses. Although recurrent tumor has been described, there

have been no cases of metastatic periosteal chondroma.⁵

The fundamental radiographic features include scalloping of the adjacent cortex, calcified cartilage matrix and associated soft tissue mass.² Our patient exhibited all of these features. If there is scalloping of the adjacent bone, the inner margin of the metaphyseal cortex remains well-defined, but there may be overhanging edges of remodelled cortex.

The differential diagnosis may be difficult because other calcifying or ossifying lesions adjacent to the cortex or periosteum may exhibit similar characteristics. In myositis ossificans and parosteal osteosarcoma, as the ossification matures, patterns of trabecular and cortical organization may appear. In cartilaginous lesions such as periosteal chondroma, no such organization occurs.

It is important to differentiate periosteal chondroma from chondrosarcoma. Although the histologic features may be similar to those of well-differentiated chondrosarcoma, radiologic and clinical evaluation once again may serve to distinguish the two. If there is rapid growth of the soft tissue mass or increase in pain, chondrosarcoma should be considered. Also, invasion of medullary bone with destruction through the cortex is an ominous finding.

As periosteal chondroma is not an aggressive lesion, treatment consists of conservative excision with curettage of the cortical bone

at the base of the lesion. If there is recurrence, en bloc excision of adjacent cortical bone should be considered.³ Our patient remains disease free approximately one year after resection of the tumor. This lesion should not be mistaken for malignant lesions that resemble it, such as chondrosarcoma and parosteal osteosarcoma, and conservative surgical measures should suffice to effect a cure. □

Correspondence: Ryo Eun Choi, M.D., Department of Radiology, Indiana University Medical Center, 926 W. Michigan St., Indianapolis, IN 46202.

Section editor: Robert D. Tarver, M.D., Director of Chest Imaging, Wishard Memorial Hospital, Indianapolis.

References

1. Bauer TW, Dorfman HD, Latham JT: Periosteal chondroma. A clinicopathologic study of 32 cases. *Am J Surg Pathol*, 6:631, 1982.
2. deSantos LA, Spjut HJ: Periosteal chondroma: A radiographic spectrum. *Skeletal Radiol*, 6:15, 1981.
3. Lichtenstein L, Hall JE: Periosteal chondroma. A distinctive benign cartilage tumor. *J Bone Joint Surg (Am)*, 34:691, 1952.
4. Merlino AF, Nixon JE: Periosteal chondroma. Report of an atypical case and a review of the literature. *Am J Surg*, 107:773, 1964.
5. Nosanchuk JS, Kaufer H: Recurrent periosteal chondroma. Report of two cases and a review of the literature. *J Bone Joint Surg (Am)*, 51:375, 1969.

Back pain: The primrose path¹ – a case report*

Laura O. Dugan, M.D.
Deborah A. Dugan, M.S.
William M. Dugan Jr., M.D.
Indianapolis

A 64-year-old white woman went to her personal physician July 5, 1988, with acute back pain. History revealed that she had injured her back July 4, 1988, while cleaning the garage.

The physical examination was negative except for lumbar muscle spasm. Carisoprodol and propoxyphene napsylate with acetaminophen were prescribed. Seven days later, the patient returned complaining of continued discomfort.

Although the back spasm had subsided, she still had lumbar area pain. On this occasion, the patient was given acetaminophen with codeine. This combination provided some analgesia; however, the pain returned each time the medication was discontinued.

After two weeks, the patient returned for further evaluation and lumbar spine films were obtained. The films demonstrated diffuse osteoporosis and mild degenerative arthritis. A trial of ibuprofen and calcium tablets gave some relief, but overall, the situation seemed to be deteriorating.

Sulindac was tried without success before the patient was ultimately referred to an orthopaedic surgeon. He reviewed the spine

films and was impressed with the degree of osteoporosis. Conjugated estrogen was added to the calcium and sulindac regimen. A bone scan also was obtained to rule out metastatic cancer. The study showed only mild degenerative changes.

On a return visit to her personal physician, a complete blood count and a chemistry profile were obtained. The hemoglobin was 10.8 units. Alkaline phosphatase and total protein were both normal, and serum iron was low. The patient was given oral iron, and the sulindac dose was increased.

Frustrated with her lack of improvement, the patient consulted a chiropractor Sept. 8, 1988. Although the first adjustment provided some relief, after three more weekly adjustments, she was experiencing more pain than ever. She returned to see her family physician, and he once again sent her to the orthopaedic surgeon.

Abstract

In the evaluation of patients older than 50 with severe back pain and chronic simple anemia, the diagnosis of multiple myeloma must be considered. Due to the age group affected, degenerative changes on spinal films may be misdiagnosed as osteoporosis, and anemia may be attributed to iron deficiency. These errors can be avoided in more than 99% of the cases of multiple myeloma by ordering a serum protein electrophoresis (SPE). Abnormal SPE patterns include monoclonal gammopathy and hypogammaglobulinemia. In the detection of multiple myeloma, magnetic resonance imaging has been found superior to plain radiograph, computed tomography and bone scan.

The patient was fitted with a back brace without therapeutic benefit. Her personal physician diagnosed agitated depression and prescribed amitriptyline at bedtime. The pain developed a radicular component, so the orthopaedic surgeon ordered a myelogram, but the patient refused. She then consulted a psychologist who specialized in chronic pain management. Biofeedback, relaxation techniques and hypnosis were tried without significant benefit.

Her pain became more prominent, and the orthopaedic surgeon again asked for a myelogram. The patient read an article in the *Ladies Home Journal* that said non-invasive computed tomography (CT) and magnetic resonance imaging (MRI) of the back were equally effective as a myelogram in the diagnosis of disc disease. She requested one of the noninvasive studies.

As it happened, the CT machine

was temporarily out of service, and an MRI was obtained Oct. 11, 1988. A sagittal view of the spine showed focal areas of decreased signal intensity on T-1-weighted images of L-2, L-3 and L-4 vertebral bodies with corresponding defects on T-2-weighted images. These findings were consistent with a diagnosis of multiple myeloma (MM) or malignant lymphoma.

Bone marrow examination confirmed a diagnosis of multiple myeloma. Serum protein electrophoresis (SPE) showed hypogammaglobulinemia and urine protein electrophoresis (UPE) demonstrated a monoclonal protein. The quantitative urine protein was 4.5 gm/24 hours. A clinical diagnosis of light chain (LC) myeloma was made, and cyclic treatment with melphalan and prednisone was instituted.

Discussion

Some chemistry profiles now include a serum iron determination. However, it is inappropriate to treat a patient with oral iron without first obtaining additional confirming laboratory studies. The *Table* shows how iron deficiency anemia differs from chronic simple anemia (CSA).

The anemia associated with multiple myeloma is CSA and will not respond to oral iron. The only therapy successful in CSA is treat-

ment of the underlying condition. Commercial automated blood counts now provide the red cell distribution width (RDW) in addition to the mean corpuscular volume (MCV). The RDW is an important new tool that helps differentiate iron deficiency anemia from CSA (*Table*).

More than 99% of the cases of overt myeloma are associated with an abnormal SPE. The two patterns seen are monoclonal gammopathy (MG) and hypogammaglobulinemia. The latter pattern is less often recognized in association with MM, but when it occurs, it is due to light chain myeloma. Therefore, one can rule out more than 99% of the cases of overt MM with a normal SPE. If hypogammaglobulinemia is discovered, a UPE should be ordered. Ossermann² in a series of 351 cases of MM found 45% with a serum MG, 30% with both a serum MG and a urine LC and 25% with a urine LC only.

Seventy percent of the patients with MM have bone pain, usually in the back or ribs.³ The radiographic findings in these patients are varied. Although the classic "punched out" lesion most frequently occurs in the calvarium, skull films rarely are obtained in patients with chronic back pain. The most common pattern in MM is diffuse osteoporosis, which is prominent in the vertebral col-

umn.⁴ In fact, massive demineralization has been found in approximately two-thirds of MM patients.⁵ It is here that the difficulty in diagnosing MM arises, as the same osteoporotic pattern also is seen in senile or post-menopausal osteoporosis. One might also see an intermediate pattern, consisting of both osteoporosis and focal radiolucencies, or even a normal skeletal radiograph particularly in the early stages of the disease.⁴ It is significant that 5% to 12% of patients with proven MM have no skeletal lesions on plain x-ray films at diagnosis.⁶

Another common finding exemplified in the case report is that MM patients can have visible radiographic findings and a negative bone scan. Often bone scintigraphy is only positive at sites of compression fractures, serving only to confirm radiographic findings.⁷ MRI detection of MM has recently been studied and found to be a superior modality to plain radiograph, CT and bone scan.^{8,9} Ludwig et al⁷ were able to identify imminent cord compression with MR and begin prophylactic radiation therapy to the site, thus preventing neurologic compromise.

Conclusion

- Consider MM as a possible diagnosis in patients older than 50 with chronic back pain and CSA.

Table

Type	MCV	RDW	Serum iron	TIBC	Ferritin	Marrow iron
Iron deficiency anemia	↓	↑	↓	↑	↓	absent
Chronic simple anemia	normal/↓	normal	↓	normal/↑	normal/↑	present

- SPE should be done early in the workup of patients older than 50 with chronic back pain.

- Virtually all patients with overt MM will have an abnormal SPE.

- Hypogammaglobulinemia is a less well-recognized pattern on SPE, occurring in 25% of the cases of overt MM.

- Two-thirds of MM patients show diffuse demineralization on plain radiographs.

- Bone scan is usually normal in MM.

- MRI is positive in virtually all cases of overt MM and may prove to be the primary imaging modality for severe nonspecific back pain.¹⁰ □

Dr. Laura Dugan is a first-year radiology resident at Methodist Hospital of Indiana in Indianapolis. Deborah Dugan is a third-year medical

student at Indiana University School of Medicine in Indianapolis. Dr. William Dugan Jr. is in the private practice of hematology and oncology.

Correspondence: William M. Dugan Jr., M.D., 1828 N. Illinois St., Indianapolis, IN 46202.

* The case report was composed to illustrate the common symptoms and findings of this condition.

References

1. Shakespeare W: Hamlet: *Primrose Path*, chapter 1, verse 3.
2. Williams WJ, et al: *Plasma Cell Myeloma, Hematology*. New York, NY: McGraw Hill; 1972:962.
3. DeVita VT, Hellman S, Rosenberg SA: *Cancer Principles and Practice of Oncology*. 2nd ed. Philadelphia, Pa: J.B. Lippincott Co; 1985.
4. Leavell BS, Thorup OA: *Fundamentals of Clinical Hematology*. 5th ed. Philadelphia, Pa: W.B. Saunders Co; 1987:732.

4. Heiser S, Schwartzman JJ: Variations in the roentgen appearance of the skeletal system in myeloma. *Radiology*, 58:178-191, 1952.

5. Ludwig H, Kumpan W, Sinzinger H: Radiography and bone scintigraphy in multiple myeloma: A comparative analysis. *Br J Radiol*, 55:173-180, 1982.

6. Leavell BS, Thorup OA: *Fundamentals of Clinical Hematology*. 5th ed. Philadelphia, Pa: W.B. Saunders Co; 1987:732.

7. Ludwig H, Fruehwald F, Tscholakoff D, Rasoul S, Neuhold A, Fritz E: Magnetic resonance imaging of the spine in multiple myeloma. *Lancet*, 2(8555):364-366, 1987.

8. Daffner RH, Lupetin AR, Dash N., Dub ZL, Sefczek RJ, Shapiro RL: MRI in the detection of malignant infiltration of bone marrow. *AJR*, 146(2):353-358, 1986.

9. Fruehwald FX, Tscholakoff D, Schwaighofer B, Wicke L, Neuhold A, Ludwig H, Hajek PC: Magnetic resonance imaging of the lower vertebral column in patients with multiple myeloma. *Invest Radiol*, 23(3):193-199, 1988.

10. Abram SR, Tedeschi AA, Partain CL, Blumenkopf B: Differential diagnosis of severe back pain using MRI. *South Med J*, 81(12):1487-1492, 1988.

■ drug names

Look-alike and sound-alike drug names

	METHARBITAL	MEPHOBARBITAL
Category:	Sedative and hypnotic	Sedative and hypnotic
Brand name:	Gemonil, Abbott	Mebaral, Winthrop-Breon
Generic name:	Metharbital	Mephobarbital
Dosage forms:	Tablets	Tablets
	NIMODIPINE	NICARDIPINE
Category:	Calcium channel blocker	Calcium channel blocker
Brand name:	Nimotop, Miles	Cardene, Syntex
Generic name:	Nimodipine	Nicardipine
Dosage forms:	Capsules	Capsules

Benjamin Teplitsky, R. Ph.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions.

Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors. □

Your new ISMA
Agency formed
specifically to
provide extremely
competitive
insurance and
financial services
products exclusively
to ISMA members,
their families and
employees

Endorsed by



ISMA *TENURE*

LOW COST TEN YEAR TERM INSURANCE

featuring...

- low, level premium
- level premium guaranteed for ten years
- current rates thereafter with no proof of insurability
- renewable to age 100
- convertible to permanent insurance to age 65
- waiver of premium for disability
- coverage for additional insureds

For a quote, additional information and to apply for coverage,
contact

Affiliated Physicians Services, Inc. toll free.
1-800-442-ISMA

Iatrogenic arteriovenous fistula of the profunda femoris artery/vein:

A case report

Rade Pejic, M.D.
Michigan City

A fistula is an abnormal communication between two body surfaces. In the case of an arteriovenous fistula (AVF), one surface is the intima of an artery and the other the intima of a vein.

The most common cause of an AVF is a penetrating injury, whether it be traumatic or iatrogenic. Other causes of acquired AV fistulae are: infection, neoplasm, and erosion by an aneurysm into an adjacent vein.

Congenital AV fistulae are, by definition, present at birth and represent a whole new entity in this pathological state.

Significant complications from femoral angiography are rare. More common complications that can occur are:¹ 1) intramural injection; 2) extravascular injection; 3) hematomas occurring around the arterial puncture site; 4) thrombosis of the artery; 5) pseudoaneurysm; and 6) AVF.

Test injection to confirm proper intraluminal needle or catheter placement is strongly recommended to avoid the above mentioned complications. The pres-

ence of good arterial pulsation in the syringe or catheter also is confirmatory of proper needle or catheter position.

Pathophysiology

Formation of an AVF has two major effects. One is on the heart and the other is on the venous system. The cardiac effects are as follows, which were clearly summarized by Sumner:² 1) When the fistula is created, the mean systemic blood pressure usually falls but returns to normal within a few minutes. 2) The heart rate also tends to increase immediately but returns to normal levels unless the volume shunted is excessively large. 3) Cardiac output

Abstract

Arteriography and venography procedures are becoming more and more routine in everyday medical and surgical care of patients. With the advent of percutaneous catheters for renal dialysis, pacemaker lead insertion, cardiac catheterizations and various types of venography and arteriography, there will be a greater incidence of associated complications secondary to catheter insertions in patients' veins and arteries. This case report deals with one such complication that can occur as a result of angiography. A brief discussion of various complications as well as surgical management of an arteriovenous fistula is presented.

increases by an amount corresponding to the shunt flow up to approximately 20% of the control level. When the volume shunted exceeds this level, the heart is usually unable to compensate completely for this level of flow. The major change responsible for the increase in cardiac output is in the stroke volume. 4) As the fistula becomes chronic, the blood volume increases. 5) The cardiac chambers dilate in response to the increased output and change in blood volume. 6) Compression of the fistula results in an immediate decrease in heart rate, particularly if the volume shunted is sufficient to result in changes in cardiac performance.

The venous effects of an AVF are: 1) increase in the intravenous pressure; 2) the occurrence of venous valvular incompetence and dilatation with prolonged venous hypertension; 3) a warm and edematous extremity; and 4) the development of chronic post phlebitic syndrome as an end result of such an AVF.

Case report

A 58-year-old man was seen complaining of right groin discomfort and right leg pain after

excessive walking. The patient's past medical history was significant in that he had a cardiac catheterization via the right common femoral artery 15 months ago during a workup for chest pain. The catheterization study was normal at that time. The patient stopped smoking 16 years ago and is not a diabetic.

On physical examination, the patient's vital signs were: temperature, 98.6°; blood pressure, 130/84; pulse, 70; respiration, 18; height, 5'8"; and weight, 154

pounds. The only positive finding was a loud bruit heard over the right femoral artery and a palpable thrill over the same area. The patient's right lower extremity was slightly warmer than the left, and he had no leg edema. The pedal pulses on the right were +1 and on the left were +2.

An abdominal arteriogram with distal runs was performed by placing a catheter through the left common femoral artery and into the aorta (*Figure 1*). The study showed a normal aortoiliac bifur-



Figure 1: Note early filling of the right common femoral and external iliac veins due to the right profunda femoris AVF.



Figure 2: Intraoperative arteriogram demonstrating normal common femoral artery bifurcation. Venous circulation is not seen because the AVF has been closed.

cation with prompt filling of the patient's right common femoral and iliac veins via a small communication between the right profunda femoris artery and vein. Consequently, a diagnosis of right profunda femoris arteriovenous fistula was made.

The patient was admitted for elective surgery and underwent an exploration of the right femoral vessels, where a communication was found between the first branch of the profunda femoris artery and vein. The fistula was closed by primary division and ligation with 3-0 black silk suture. An intraoperative arteriogram confirmed that the fistula was closed (*Figure 2*). The patient had an unremarkable postoperative course and was discharged from the hospital in three days.

Discussion

There are no hard and fast rules regarding the surgical management of acquired AVF. However, the larger the volume shunted, the earlier the corrective procedure should be undertaken. In case of fistulae occurring between the aorta and inferior vena cava, immediate cardiac failure can occur, requiring an emergency operation. However, if the shunt is being well-tolerated by the patient, then an elective surgical procedure can be planned safely.

The basic surgical procedure in any case is physical separation of the artery from the vein and direct closure of the defect, either by suture ligation or vein patch angioplasty. Synthetic patching material, such as Gore-tex vascular patch, may be used. In cases of a very small fistula, such as the

case presented, simple suture ligation and division of the communication may be sufficient. In addition to eliminating the fistula, the vascular surgeon should always strive to preserve the integrity and function of the corresponding artery and vein.

Quadruple ligation of the artery and vein above and below the AVF was reported by Delbet³ and then by Cutler⁴ with section of the vessels between the quadruple ligation. For a long time, this was the standard of care, and now it is very rarely used.

Matas' operation⁵ consists of suturing the arterial lesions by the intravenous route and ligation of the vein. It is indicated in the case of a side-to-side shunt, especially when connective tissue reaction develops, particularly of inflammatory origin, contraindicating any other reconstructive procedure with or without prosthetic material.

If possible, the artery and vein are dissected out proximally and distally when the connective tissue reaction is limited. If the vessels still retain their proper morphology and the tunica media is not hardened, it is possible to interrupt the AVF and restore the continuity of the artery and vein by means of end-to-end or lateral sutures. At times, the vein may have to be sacrificed. A more modern approach is exclusion of the AVF by the reconstruction of the anatomic continuity of the artery and vein with a vein or synthetic graft. Direct reconstruction with an end-to-end anastomosis of the artery and vein after excision of the shunt is possible but rarely feasible. This is pos-

sible only in small AV fistulae and when the connective tissue reaction is minimal.

The fundamental principle when dealing with AVF is to maintain the arterial pathway. The venous flow, even in the most serious cases (ligation of the inferior vena cava), finds a collateral circulation that ensures not only drainage of the distal part but also the patient's survival.

Conclusion

A diagnosis of AVF can be confirmed by appropriate angiography. Surgical correction of such a lesion is indicated to prevent immediate or future cardiac and venous complications. The surgical procedure is relatively safe, assuring the patient a permanent cure of a potentially serious pathological entity. □

Correspondence and reprints: Rade Pejic, M.D., Department of General and Peripheral Vascular Surgery, The Medical Group of Michigan City Professional Corp., 1225 E. Coolspring Ave., Michigan City, IN 46360.

References

1. Haimovici H: *Vascular Surgery, Principles & Techniques*: chapter 3, Sprayregen S: *Principles of Angiography*. McGraw-Hill; 1976, p. 59.
2. Sumner DS: Arteriovenous fistula. In Strandness DE Jr., ed. *Collateral Circulation in Clinical Surgery*, sec. 2. Philadelphia, Pa: W.B. Saunders Co; 1969.
3. Delbet P: *Pronostic et traitement des anevrysmes arterioveineux externes*. These de Paris; 1889.
4. Cutler E: In Leriche, R: *Anevrysmes arteriels et fistules arterioveineuses*. Masson et Cie: Paris, France; 1949.
5. Matas R: An operation for the radical cure of aneurysm based upon arteriorrhaphy. *Ann Surg*, 37:161, 1903.

Spectrum Emergency Care, Inc.

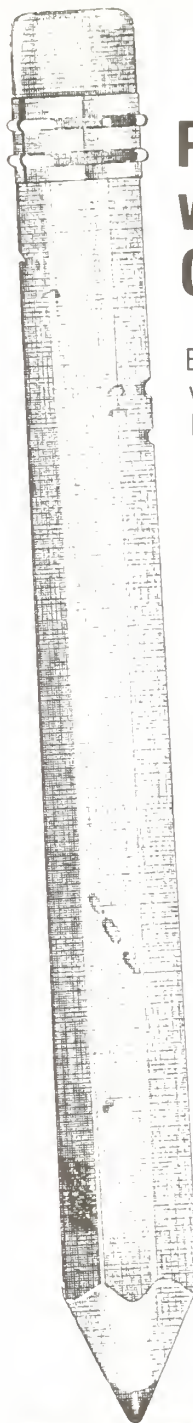
We currently have part-time, full-time and Medical Director positions available in various low to moderate volume Emergency Departments throughout Indiana. We can offer you a flexible schedule from month to month with no over-head, office expenses and no on-call duty. Physicians receive a competitive hourly rate and the best occurrence malpractice insurance in the industry. Full-time physicians (those who provide 48 hours per week) may also receive relocation assistance, CME funds, and Indiana licensing fee reimbursement. In addition, Medical Directors are offered administrative orientation and training, health, life, dental and disability insurance and a 401k retirement plan. Call us today for more information and an application.

Joan E. Logel, Physician Recruiter
1-800-325-3982, ext. 3087



SPECTRUM EMERGENCY CARE, Inc.

P.O. Box 27352, St. Louis, MO 63141



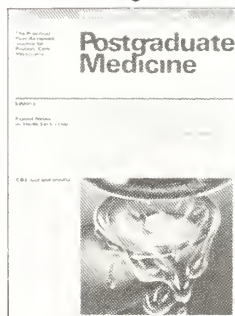
Pointing the way to more CME credit.

Earn more CME credit with Postgraduate Medicine's new and improved CME Program sponsored by the Interstate Postgraduate Medical Association.

More CME credits for less money (\$10.00).

Practical questions covering the most important points from each article—not just one symposium article.

Now, more than ever, you'll want to read every issue of Postgraduate Medicine from cover to cover!



4530 W 77th Street
Minneapolis, MN 55435
(612) 835-3222

The relationship between physical aggression and chemistry

John L. Strefling, M.D.
Logansport

A disturbing and confusing picture of the traditional family has been created by recent multimedia education of the American public concerning family violence. Learning theory has gained popularity as the explanation to the spiralling incidence of physical abuse within intimate relationships.

Although learning theorists postulate a cause-and-effect relationship for the violence between intimates, they fail to examine cogent intangible dynamics. The emotional paradox evidenced by the resulting self-anger, guilt and depression experienced by most aggressors closely following an assault has not been explained. Concurrently, learning theory has not addressed the statistical reality that women are assaulters about as often as men, even though they are not socialized toward physical contact. Therefore, an important bio-physiological component to violence within families has been largely ignored, to the detriment of society.

Within the last three years, only one magazine research article has focused on a hormonal/glandular connection to aggression and vio-

lence. Hall¹ reported on the work that the Kinsey Institute is pioneering in behavioral endocrinology. This research is being coordinated by June Reinisch, Ph.D., the institute's director.

Reinisch initially looked at 42 children whose mothers had been given steroid hormones during pregnancy. Each of the children had a sibling who had not been exposed to the hormones, and she used the siblings as a comparison group. She found significant personality differences.

The youngsters who had been exposed to progestins, which act like male hormones, consistently scored higher on traits considered masculine than their siblings of the same sex did. They were more independent, individualistic, self-assured and self-sufficient. Youngsters who had been exposed to estrogens, particularly synthetic diethylstilbestrol (DES), which acts like female hormones, scored higher on feminine charac-

Abstract

This article proposes, although not a highly popular concern, that there is a need for more research into the relationship of aggression to chemical balance/imbalance. It is postulated that bio-chemical research would provide physicians with increased understanding and viable treatment potential for the violently aggressive patient.

teristics. They were more group-oriented and were dependent on the group.

Reinisch later studied the effects of hormones on behavior and discovered that prenatal exposure to hormones had a powerful effect on whether children expected to handle conflict with physical aggression or by other means. Because most psychologists were still attributing nearly all behavior to learning, she was careful to eliminate possible sources of bias. No one who interviewed or tested the children was allowed to know which ones had been exposed.

Reinisch studied children who showed no physical evidence of exposure, whose mothers had forgotten or had never known they had been given hormones; most thought they had been given vitamins. Some of Reinisch's findings were so strong that she had a difficult time believing them.

"The Fighting Hormones" theory proved startling. Reinisch

questioned 54 children about how they thought they would respond to six typical conflicts children have with one another, such as arguments over a game. They then were asked to choose one of four possible reactions: hit someone; use aggressive words; beat a hasty retreat; or find a nonaggressive way to handle the conflict, such as appealing to a teacher.

Half of these children (17 girls and eight boys) had been exposed to synthetic progestins before they were born. The others were their brothers and sisters of the same sex who had not been exposed. Reinisch found that both sex and prenatal exposure to hormones influenced whether a child expected to use physical force. Girls who had been exposed to the hormones were much more likely to pick a physically aggressive response than were their unexposed sisters. Boys who had been exposed were considerably more apt to choose physical aggression than were their brothers.

No other factors seemed to influence the results. Age made no difference, nor did a child's birth order, and effects held only for the physical aggression. Hormone exposure had no effect on the children's choice of verbal aggression.

Learning theorists have been exploring cognitive approaches to understand aggression for many years. Research has focused on the rearing experience within the home. Cummings, Iannotti and Zahn-Waxler² looked at the background of anger by exposing 90 2-year-olds to actors who first simulated a warm, friendly exchange,

then a heated argument and, finally, a friendly reconciliation.

These researchers found that the children were more likely to hit, kick, push or physically attempt to take something from their playmates following exposure. Since the children did not simply imitate specific actions they witnessed (the adult's quarrel was purely verbal), the researchers suggest that anger itself may be contagious.

The treatment of anger and violence containment has led to

Other studies on postmortem and living schizophrenia patients show clear connections between D2 dopamine receptor density and the behaviors of schizophrenia.

various cognitive and behavioral approaches. Floyd³ studied 100 people who fell in love but broke up instead of marrying. Her studies on conflict resolution found that during the early stages, relationships that broke up looked just like relationships that led to marriage. In relationships where anger and conflict were not resolved successfully, the relationships resulted in an eventual breakup. Therefore, it is difficult to change lifelong patterns of aggression into patterns of assertion.

Researchers are challenging some long-held views in their work toward understanding why people hold back emotions. The Type A behavior pattern, with its combination of rush, impatience and competition, is being researched. The links to coronary difficulties are shifting from the

global concept of mental, verbal and physical factors to one feature – hostility.^{4,5}

Hormonal influences and glandular abnormalities have proven puzzling to understand. But, when the combinations have been solved, the findings have radically changed our views about etiology and treatment. The fields of depression and schizophrenia are examples.

The blues that take the body and mind on a complex dance have given researchers trouble charting the steps. Now, there is evidence that a brain hormone may be involved in the debilitating symptoms of both depression and the eating disorder, anorexia nervosa.⁶ The corticotropin-releasing hormone (CRH) produces behavioral and physio-

logical changes characteristic of depression. CRH, produced by the hypothalamus in the brain, stimulates the pituitary gland to produce a hormone called adrenocorticotrophic hormone. This hormone turns on the adrenal glands' production of cortisol. That shunt would mean high levels of cortisol seen in depressed and anorexic patients reflect abnormally high levels of CRH.

Other studies on postmortem and living schizophrenia patients show clear connections between D2 dopamine receptor density and the behaviors of schizophrenia. This makes the biochemical link intrinsic to treatment.⁷

Like other cases of psycho/social maladaptive behavior, the chemistry of aggression has been ignored. The research of clinical depression, alcoholism and psy-

chotic conditions has produced answers to many confusing behavioral expressions. Physicians now are able to not only sedate but chemically readjust important chemistry imbalances within the central nervous system.

Further scientific examination into cyclical violence is necessary even though it may not be a current concern. □

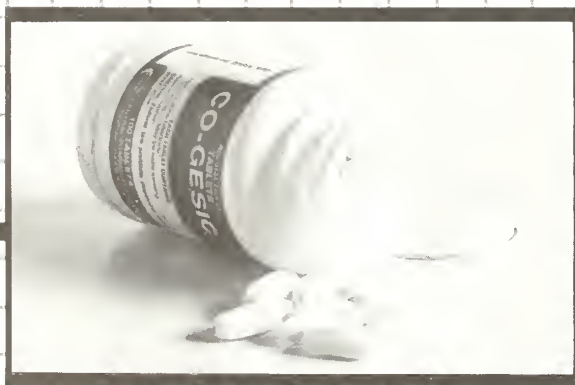
Correspondence: John L. Strefling, M.D., Box 30, Logansport, IN 46947.

References

1. Hall E: The fighting hormones (Synthetic progestin research by J. Reinisch). *Psychology Today*, 20(6):32-39, 1986.
2. Cummings, Iannotti, Zahn-Waxler: A background of anger. *Psychology Today*, 19(9):20-26, September 1985.
3. Floyd S: Learn to argue – learn to love. *USA Today*, 115:3-4, August 1986.
4. Wood C: The hostile heart. *Psychology Today*, 20(9):10-12, September 1986.
5. Sigelman CK, Berry CJ, Wiles KA: Violence in college students' dating relationships. *J App Soc Psychol*, 5:530-548, 1984.
6. Chrousos G: The biochemistry of the blues. *Science News*, 129:22, 1986.
7. Wong DI, Wagner HN, et al: Positron-emission tomography reveals elevated D2 dopamine receptors in drug naive schizophrenia. *Science*, 234(4783):1558-1563, Dec. 19, 1986.

Co-Gesic®

HYDROCODONE BITARTRATE* and ACETAMINOPHEN TABLETS,
5 mg and 500 mg *Warning – May be habit forming



Proven
Dependability



CENTRAL PHARMACEUTICALS, INC.

SEYMOUR, INDIANA 47274 USA

Quality Pharmaceuticals Since 1904



"...Your financial security specialists are on call"

We understand a physician's insurance deserves specialized attention. Our services are designed with the physician in mind.

Working with American Physicians Life and Lincoln National Life, we have available a comprehensive portfolio of insurance products. These products include life insurance, professional disability income coverage, business overhead expense, qualified pension plans, tax-deferred annuities, hospitalization-major medical insurance and dental insurance. The products can be customized to meet your personal needs as well as those of your professional corporation.

Williams/Townsend Associates, Inc. will assist you with your insurance needs. That's our specialty!!!

**Endorsed by the
Indiana State Medical Association**



For more information contact:

Earl W. Williams
Professional Account Representative
11595 North Meridian Street, Suite 802
Carmel, IN 46032
(317) 573-6520
Indiana 1-800-421-3020
Other States 1-800-428-7105

Get the facts about malpractice insurance

Deciding what malpractice insurance to buy is one of the most important decisions a physician must make. Many physicians, however, do not put enough time and effort into investigating such a decision.

Typical of the insurance market are cycles that affect all insurance carriers. "Soft" markets are characterized by price cutting and the influx of many new companies entering the market. During a "hard" market cycle, prices generally rise, and availability decreases. Paradoxically, at such times the consumer is likely to see an increase in solicitations from new and sometimes unproven insurance mechanisms, such as risk purchasing and risk retention groups or even specialty captive companies whose long-term commitment to the marketplace is questionable.

With an overall decrease in the frequency and severity of claims, the malpractice environment is beginning to improve. We see the market softening, which means a physician may have more alternatives from which to choose, making his or her decision more difficult. However, making that decision then becomes even more important.

Many carriers enter the market boasting lower rates and promising they intend to remain in business. Companies have made and broken these promises before, yet some physicians and medical institutions are succumbing to the lure of lower rates offered by

commercial carriers returning to the market and by alternative insurance mechanisms.

Consider what happened when almost 4,000 physicians nationwide responded to direct mail solicitation from a Medical Liability Purchasing Group, now out of business, based in Jeffersonville, Ind. An investigation revealed that it was nothing more than a front for a carrier in Guam that had no authorization to do business in the United States. It is unknown how many physicians contributed to the \$4.4 million in

volatility and instability. This mission is the purpose for the formation of physician-owned and -controlled insuring entities such as ours. Many companies do not operate on these same principles."

Because of the confusing nature of the malpractice product, many physicians are unsure of the questions that should be asked when speaking with insurance company representatives. Physicians should ask the following questions when selecting a medical malpractice insurance carrier:

1. How long has the company been writing medical professional liability coverage? The most important issue to consider is whether the company has proven itself as a capable insurer and whether its manage-

ment is experienced in this type of business. A company's track record will speak for itself.

2. Is the company financially sound? Investigate the dollar amount of the company's surplus. (The surplus is the difference between total assets and total liabilities or the company's net worth.) Also investigate to determine if the company is adequately reserved for payment of present and future claims. The insured has the right to know this information, which should be given freely by a company representative.

3. Are their rates actuarially sound? Many new carriers entering the market will charge low rates to attract prospective insureds. Many insurance regulators will question whether these lower rates are actuarially com-

With an overall decrease in the frequency and severity of claims, the malpractice environment is beginning to improve.

premiums the purchasing group collected, but insurance regulators believe doctors who signed up are essentially practicing with no insurance coverage.

David Duncan, president and CEO of Physicians Insurance Company of Indiana (PICI), said, "As an insurer formed by physicians, PICI feels responsible to keep Indiana physicians informed about matters related to the medical professional liability situation in our state. We must be aware of unethical business practices of some new carriers entering the state. We want to ensure physicians and patients that a stable source of professional liability protection will be available. In addition, we want to offer a long-term commitment to a form of insurance known historically for

mensurate with the exposures. If a new company does not charge adequate rates initially, then a serious problem could evolve in the future that might affect its financial stability.

4. Does the company have experienced defense counsel and will it provide you with the information you request regarding a claim? In the unfortunate event of a lawsuit, you will feel more secure knowing that the attorneys retained for your defense are well-informed and specialize in malpractice litigation. Be sure to ask about the carrier's claims services. Some companies are more willing than others to disclose information to the physician about a pending suit against him or her. Also ask if the company offers a consent-to-settle clause that requires the company to obtain written consent from an insured before paying a claim.

5. What type of coverage does

the company offer – occurrence or claims-made? An occurrence policy covers claims that "occur" (the act of malpractice) during the given policy year, regardless of when the claim is reported. A claims-made policy provides coverage for only those claims that "occur" during a given policy year and are reported to the company while coverage is in effect. For this reason, a physician must buy a "tail" to provide continuous coverage after the policy is no longer in effect.

Occurrence coverage is preferred by most physicians because it offers continuous protection well into the future. Fortunately, occurrence coverage is readily available in Indiana. When considering a claims-made policy, a physician should be sure the company representative provides a detailed explanation of claims-made coverage, including pricing realities of buying "tail" coverage.

6. What facts does your state have on file about the company? Is the company on file with the department of insurance in your state? All insurance companies must have their policies, procedures and rates filed with the department of insurance for the department's review and approval. However, some insurance mechanisms, such as risk retention groups and purchasing groups, are required to be on file **only** with the department of insurance in the state in which they originate. As a result, such groups operating in states other than the state of origin can charge any rate or adopt company policies without the prior approval of any other state department of insurance.

Getting answers to these questions will be time-consuming. However, failing to get all the facts can be costly. ▮

January CME quiz answers

The following letters are the answers to the CME quiz that appeared in the January 1990 issue: "Evaluation and management of goiter in childhood and adolescence."

- | | |
|------|-------|
| 1. c | 6. c |
| 2. b | 7. a |
| 3. d | 8. c |
| 4. b | 9. d |
| 5. b | 10. b |

Physician Placement Service

Physicians or residents seeking practice opportunities may list their curriculum vitae with the Physician Placement Service at no charge.

PPS acts as a clearinghouse for communication between physicians and recruiters such as hospitals, clinics and physician groups. Since its establishment in 1987, PPS has assisted many physicians in locating practice situations.

For more information, contact Denise Le Doux, PPS coordinator, Indiana State Medical Association, (317) 925-7545 or 1-800-969-7545.

ISMA to sponsor one-day leadership conference

The Indiana State Medical Association will sponsor its 1990 Leadership Conference Saturday, March 24, at the Holiday Inn North in Indianapolis.

In addition to the ISMA-sponsored programs, the American Medical Association, in conjunction with the Environmental Protection Agency, will sponsor a daylong seminar on radon.

The conference will open with a general session, "Legislative Update," conducted by Mike Abrams of the ISMA government relations staff, from 9 a.m. to 10 a.m.

Adele Lash, ISMA director of communications, will conduct a daylong seminar on "Medicine, Media and Microphones," designed to help physicians during media interviews. Limited to 15 participants, the workshop will give each enrollee an opportunity to be interviewed twice on cam-

era.

Barbara Killila, R.N., director of education and risk management for Physicians Insurance Company of Indiana, will conduct two half-day sessions on "Risk Management - Malpractice: The Truth and Consequences." Her topics will include medical record-keeping, documentation and communication with patients. Killila, who has a master's degree in health education, completed a one-year administrative residency at Wishard Memorial Hospital.

Dolores M. Burant, M.D., of Elkhart, will present two half-day programs dealing with chronic diseases in medical families. She will discuss the personal and professional impacts that chronic physical and mental diseases have on medical families and will explain options for confidential quality treatment. Dr. Burant is

clinical director of outpatient addictions at Oaklawn Center in Elkhart and is a member of the ISMA Commission on Physician Assistance.

The risk management and chronic disease programs will be repeated in the morning and afternoon.

The fee for the radon seminar is \$20. Participants will receive four credit hours of Category I continuing medical education.

The ISMA pre-registration fee will be \$100 for physicians, \$50 for residents and \$25 for guests. Registration at the door will be an additional \$25.

Registration will begin at 7 a.m. for the radon seminar and at 8 a.m. for the ISMA program.

For additional conference information, call Denise Le Doux at the ISMA office, (317) 925-7545 or 1-800-969-7545. □

■ message from the president

George H. Rawls, M.D.
ISMA President

The 1989 ISMA House of Delegates adopted Resolution 89-19, which calls for the ISMA to create medical career development programs for young adults throughout the state. I am pleased to report that ISMA leadership has met with representatives of the Exploring Division of the Boy Scouts of America and found that the Exploring Program is virtually custom-designed to our needs.

The Exploring Division of the Boy Scouts of America is for young men and women, ages 14 through 20. Its purpose is to bring a character-building, citizen-

ship training and fitness program to the youth of America. Explorer posts offer a variety of career and recreational programs designed to provide service, social, citizenship, outdoor, career and fitness activities. The purpose of this effort has provided the youth of America the opportunity to look into careers in medicine and health while participating in worthwhile activities.

I strongly believe that we must all invest some time in the future of medicine in Indiana. With the number of Indiana students accepted into medical school decreasing during the past several years and the number of qualified students who seek admission to the Indiana University School of Medicine declining each year, we

must take steps now to assure a continuation of the quality of medical practice in this state.

I urge you to become personally involved in the fascinating process of sharing your insider's knowledge of the practice of medicine with young adults. To find out how the program operates, please join us for lunch on one of the following dates:

April 4 - Holiday Inn, Plymouth (date subject to change)

April 11 - ISMA Headquarters, Indianapolis

April 18 - Radisson Hotel, Evansville

April 25 - Quality Inn, Clarksville

For more information, call Mike Huntley at ISMA, (317) 925-7545 or 1-800-969-7545.

■ recent court rulings

HMO liable for the negligence of a non-HMO consulting physician

An HMO was vicariously liable for the negligence of a cardiologist brought in as a consultant by an HMO physician, a federal appellate court for the District of Columbia ruled.

The patient, a 48-year-old man, was a subscriber of the HMO through his employer. In March 1983, the patient was treated at the HMO for abdominal pain. On May 6, 1983, the patient spoke with an HMO nurse about continual stomach pain. On May 12, the patient called the HMO about a 45-minute episode of chest pain radiating into his left shoulder. The patient was sent to a hospital emergency room, where an EKG was done. The EKG was interpreted as having non-specific S-T wave changes. An HMO physician admitted the patient to the hospital's coronary care unit and brought in a cardiologist to examine the patient. The cardiologist was not an HMO physician.

After reviewing the available information, the cardiologist determined the patient probably had not had a heart attack. The cardiologist scheduled additional tests and found the patient's MUGA test results to be normal, but the patient's stress EKG results were abnormal. Nevertheless, the cardiologist concluded it was unlikely the patient had coronary heart disease and did not order more tests or restrict the patient's activities.

In the four nights following the MUGA test, the patient complained to an HMO physician of profuse night sweats. After reviewing the patient's medical record, which did not yet include the results of the abnormal stress EKG, an HMO physician told the patient that the night sweats were

not cardiac related.

On June 19, 1983, the patient began to sweat heavily and became exhausted after mowing his lawn and doing some housework. The next day he began to vomit and was very weak and tired. The patient's wife called the HMO nurse, who responded that the patient would have to sweat out his condition. When the wife returned from this telephone call, she found the patient gasping for air. The patient stopped breathing before the rescue squad arrived, and he died in the ambulance on the way to the hospital.

The patient's wife, as personal representative of the patient's estate, sued under the District of Columbia's survival statute and claimed that the HMO physician had negligently failed to diagnose and treat the patient's latent coronary artery disease.

The jury returned an \$825,000 lump sum verdict in favor of the wife, as the personal representative of the patient's estate. The HMO appealed on several issues. First, the HMO contended that it had not breached its contractual duty to provide adequate health care and was not vicariously liable for the negligence of the consulting cardiologist because he is an independent contractor. The federal appellate court disposed of the HMO's first argument by stating that "the record is replete with ... evidence" that the HMO breached its contractual duty.

Secondly, the appellate court held that under the law of the District of Columbia, the HMO was responsible for the negligence of the cardiologist, despite his status as an independent contractor. The court pointed out that the cardiologist was brought in on

the patient's case by an HMO physician. Therefore, the HMO selected him. Further, the HMO had some ability to control the cardiologist in that he reported to the patient's primary physician, an HMO physician. Finally, the cardiologist's actions were part of the regular business of the HMO.

The federal appellate court explained that while the courts in the District of Columbia had not addressed the issue of when an independent contractor is an apparent or ostensible agent, there is a decision by the federal district court for the District of Columbia holding that an employer is not responsible for the acts of an independent contractor when the independent contractor is acting on his own initiative and without direction or control of the employer. The appellate court opined that in the case at issue, the cardiologist acted neither on his own initiative nor independently of the HMO physician. Actually, the cardiologist "only made recommendations to the (HMO) doctor," the court noted.

The appellate court also referred to an opinion from Maryland's highest court that held that a hospital was responsible for its emergency room physicians even though they were independent contractors because "patients who came to the emergency room reasonably expected - and were not disabused of the notion - that the doctors in the emergency room were hospital employees." By analogy, according to the court, the cardiologist was brought in by the HMO to examine the patient, who had every reason to believe that the cardiologist was the HMO's agent.

The HMO also raised questions

■ recent court rulings

No judicial review for hospital's decision to restrict MD's privilege

on appeal concerning the calculation of the amount of damages. The court found there was no need for an expert to testify as to the calculation of the patient's lost future wages because there was sufficient testimony by his employer regarding his employment history and his chances of being promoted. Nevertheless, the court held that expert testimony was necessary to guide the jury on questions of inflation and discounting to present value. Further, the court held that the HMO was entitled to a jury instruction that any award would not be subject to taxes, because this instruction would help the jury in calculating the patient's lost earnings.

Based on these findings, the appellate court reversed in part and remanded the case for a new trial only on the amount of damages. — *Schleier v. Kaiser Foundation Health Plan of the Mid-Atlantic States Inc.*, 876 F.2d 174 (C.A., D.C., May 26, 1989)

Comment

It is likely that more personal injury suits brought against HMO physicians will also name the HMO under the theory of *respondeat superior*, even if the physicians are independent contractors. It is not at all unusual for a hospital to be found liable for the negligence of physicians on its medical staff for various reasons — ostensible agency, negligent credentialing, etc. The same theories apply to HMOs and their relationships with physicians who are independent contractors. — *Terrie A. Rymer, J.D.*, staff attorney, Health Law Division, American Medical Association. □

A private hospital's decision to limit a physician's surgical privileges was not subject to judicial review under an arbitrary and capricious standard, the Indiana Supreme Court ruled.

The physician had first been granted surgical privileges in 1973. They were renewed in 1974, 1976, 1978 and 1980, but in 1982, the hospital medical staff executive committee voted to no longer permit him to perform certain types of surgery. The board of directors agreed.

In a suit against the hospital, the physician alleged that his surgical privileges had been limited without due process. When the physician attempted to use information from peer review proceedings, the hospital brought an interlocutory appeal. The appellate court held that the statute providing confidentiality and privilege for peer review committees applied to civil actions generally and not simply to malpractice actions. The trial court entered summary judgment for the hospital, and the appellate court affirmed.

On further appeal to the Indiana

Supreme Court, the physician contended that the hospital's actions should be subject to judicial review under an arbitrary and capricious standard. The court said a majority of the jurisdictions that had addressed the issue had concluded that exclusion of a physician from staff privileges in a private hospital was a matter within the discretion of the managing authorities of the hospital and not subject to judicial review. The court said that in the absence of proof of a close connection between the state and the challenged action of the hospital, the physician was not entitled to the judicial review sought.

The court found that the trial court had correctly granted summary judgment for the hospital. — *Pepple v. Parkview Memorial Hospital Inc.*, 536 N.E. 2d 274 (Ind. Sup. Ct., March 31, 1989). □

Reprinted from recent issues of The Citation, a medicolegal digest for physicians prepared by the Office of the General Counsel of the American Medical Association.

■ guest editorial

Carl D. Martz, M.D.
Punta Gorda, Fla.

... The true professional draws no distinction between work and play, labor and leisure, education and recreation and simply pursues a vision of excellence in every activity, and leaves it to others to determine whether it is work or play.

The term "profession" implies a traditional differentiation from a vocation, a trade or a business. It implies a body of knowledge and understanding together with special skills that cannot be readily picked up by a versatile amateur or laboriously acquired by an apprentice.

This body of knowledge and skill is often so complex that the intelligent "man on the street" finds it difficult to pass judgment on the quality or worth of professional service. Therefore, there

has grown up around the recognized professions – entrance qualifications, certification, peer review and ethical codes to protect the public from charlatans, bunglers and crooks and to protect the reputable professionals from unscrupulous competitors and litigants.

The professional status is an implied contract to serve society in consideration of the honor, privilege and protection that it accords the professional person. Through all professional activity, there is this continuing accountability to those served, to colleagues and to society that separates it from a trade or a business and distinguishes the genuine from the counterfeit.

Entrance into a profession requires approval by future colleagues followed by continuing peer review of performance, continuing education and compliance with a code of conduct in profes-

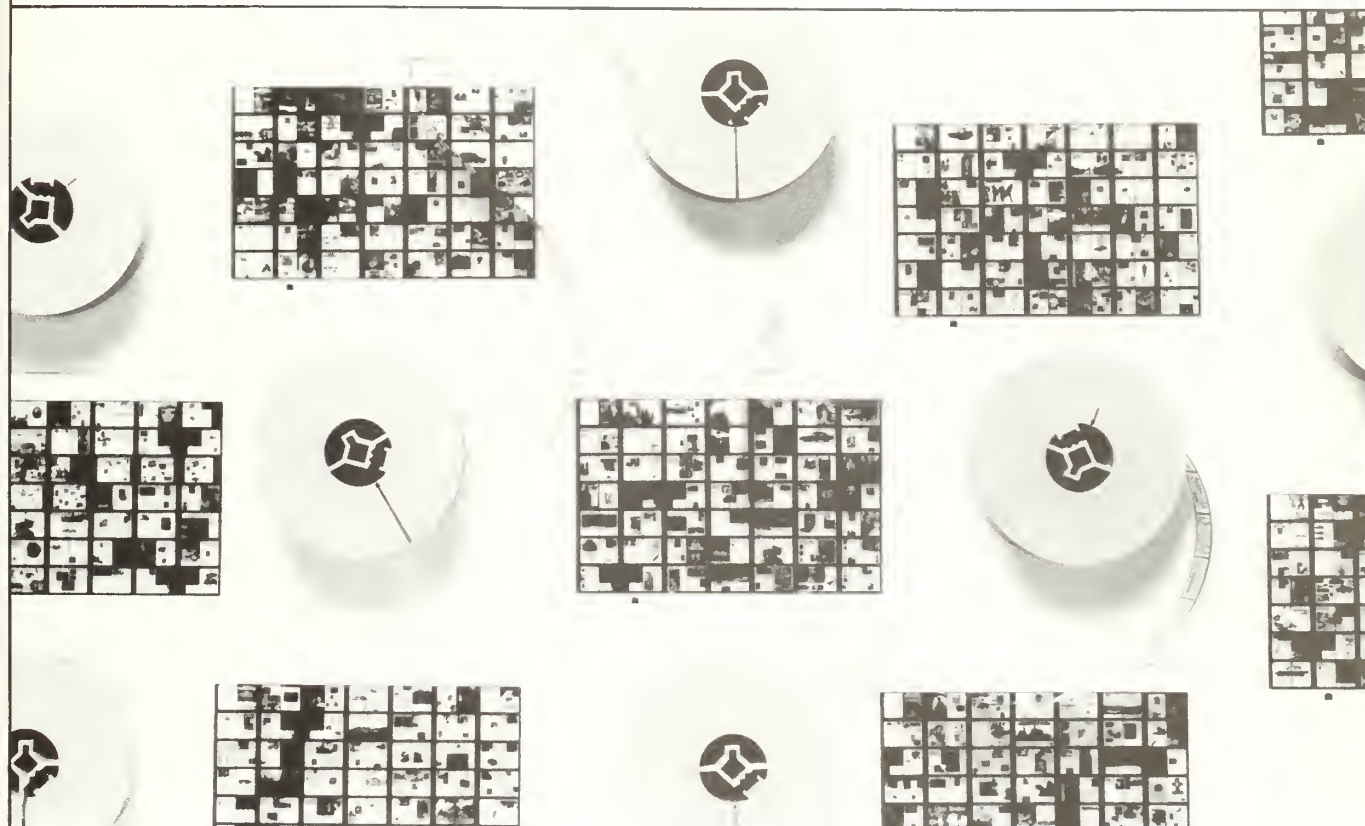
sional and societal relationships.

Professional spirit implies the subordination of the pursuit of gain to the goal of serving. Monetary gain is not the measure of professional success. The professional spirit demands but one standard of performance – the best – to all who are served. It implies an obligation to advance professional knowledge and skill and to share these freely with colleagues and students, recognizing indebtedness to them and to professional forerunners and successors. □

Correspondence: Carl D. Martz, M.D., 657 Bal Harbor Blvd., Punta Gorda, FL 33950.

This guest editorial is one section of a term paper written in 1935 by Dr. Martz while he was a premedical student at DePauw University in Greencastle, Ind.

This publication is available in microform.



UMI reproduces this publication in microform: microfiche and 16 or 35mm microfilm. For information about this publication or any of the more than 16,000 periodicals and 7,000 newspapers we offer, complete and mail this coupon to UMI, 300 North Zeeb Road, Ann Arbor, MI 48106 USA. Or call us toll-free for an immediate response: 800-521-0600. From Alaska and Michigan call collect 313-761-4700. From Canada call toll-free 800-343-5299.

U·M·I

A Bell & Howell Company
300 North Zeeb Road
Ann Arbor, MI 48106 USA
800-521-0600 toll-free
313-761-4700 collect from Alaska and Michigan
800-343-5299 toll-free from Canada

Please send me information about the titles I've listed below:

Name

Title

Company/Institution

Address

City/State/Zip

Phone (

)

■ book reviews

Rodney A. Mannion, M.D.
LaPorte, Ind.

The Journals of William A. Lindsay: An Ordinary Nineteenth-Century Physician's Surgical Cases, edited by Katherine Mandusic McDonell, Indiana Historical Society, 315 W. Ohio St., Indianapolis, IN 46202, 1989, 262 pages, \$20 for members of the Indiana Historical Society and \$27.50 for nonmembers.

Although this is a collection and exposition of a surgeon's case diaries from 1822 to 1841, the interesting aspect is what can be inferred about the life and times of the American people of that era. The medical portion is interesting, but the sociological insight seems to be unique.

These documents were acquired by the Indiana State Library in 1942 and consist of three note-

books, each about 100 pages in length (the presumed second journal is lost). Kathy McDonell first became aware of the journals while she was a research historian at Conner Prairie in Noblesville, Ind. She is now the curator at the Indiana Medical History Museum, located on the grounds of the Central State Hospital in Indianapolis.

This book consists of 10 chapters and an index. A comprehensive chronology of Lindsay's life, pharmaceutical recipes from his journals and a glossary of pertinent personal and place names are included with the surgical diaries. An interesting but extraneous glossary of medical and pharmaceutical terms also is included.

One interesting example of sociological insight involves a case of "lock jaw" in a 70-year-old man. He is said to "... have been one of that class who had been subject to all the hardships and

privations and toil of clearing up the rugged western forest." The reader is taken back to the pioneer days of our country. Another example is the depiction of the last days of Lindsay's wife, who bore nine children and died from an apparent uterine sepsis while pregnant again.

Right or wrong, it is easy to understand why the modern woman would revel in her independence from this type of marital servitude.

The book contains many illustrations, including photos of pages from both the journals, and visual excerpts from various 19th century medical publications that relate to the accompanying text. The editor has created a genuine treatise on medical history by enlarging and adding to the original journals.

I found this book very enlightening and recommend it unreservedly. □

Edwin S. McClain, M.D.
Indianapolis

Menopause and the Years Ahead, by Mary Beard, M.D., and Lindsay Curtis, M.D., 1988, Fisher Books, 3499 N. Campbell Ave., Suite 909, Tucson, AZ 85719, \$9.95.

This book was written by two obstetricians and gynecologists, Mary Beard, M.D., and Lindsay Curtis, M.D. It contains 17 chapters and an extensive bibliogra-

phy. The authors used a question-and-answer format. Many areas for patient concern are included, but the chapters regarding surgery, sex, weight control, sports, emotional health, cosmetic surgery, aging and osteoporosis are especially well-done.

Valuable information may be gained by the patient's perusal of the contents. The patient is encouraged to use estrogen and progestin in combination therapy to avoid crippling osteoporosis, reduce the incidence of endometrial cancer, decrease the risk of

heart disease and relieve the hot flashes often associated with menopause.

Because life expectancy has increased so dramatically in the 20th century, women can expect to live, on the average, more than one-third of their life in menopause. These menopausal years will be associated with many changes and challenges.

A positive outlook, however, along with an aggressive approach to preventive health care can make those years the best years. □

■ book reviews

Clyde G. Culbertson, M.D.
Columbus, Ind.

Eli Lilly: A Life, 1885-1977, by James H. Madison, available from Indiana Historical Society, 315 W. Ohio St., Indianapolis, IN 46202, or Indiana University Press, 10th and Morton streets, Bloomington, IN 47405, 356 pages, \$29.95.

This book contains 10 chapters on Eli Lilly, five about his life from birth until retirement as president of Eli Lilly and Co. in 1948 and five about his activities inside and outside the company after his retirement.

Lilly's private life is described chronologically, including life with his company and in other pursuits. Much of the book's content is referenced to company documents in the history file and a review written by company historians, titled *A History of Eli Lilly and Company*.

This book is well-written and carefully edited. It constitutes a major effort on the part of the

author because of the complexity and many sources to be read and considered. He indicated that he never knew Lilly and, therefore, did "not know what was in his heart."

With the above exception and the warning that the book is based on records and interviews, it gives the essentials of the remarkable history of Eli Lilly and Co. and the great contributions of the four Lillys to this state, the nation and the world. However, the book is less than a complete account.

The description of Lilly is a real-life story of a hometown boy who experienced many common difficulties yet managed to make monumental contributions to humanity as a pioneer industrialist and a great benefactor to the causes of higher education, archeology, history, historical preservation, the Christian religion and its institutions with his talent and wealth. His benefactions will be important for many years to come.

R.I.P., Mr. Lilly, I thank God I was privileged to know you. □

Edwin S. McClain, M.D.
Indianapolis

Breastfeeding Source Book, by Marilyn Grams, M.D., Achievement Press, Box 608R, Sheridan, WY 82801, 1988, 220 pages, \$9.95.

This book contains many tips and information concerning breastfeeding, such as preparation before the baby comes and breastfeeding during the first weeks.

Associated potential problems are listed, and the management of each is discussed. Information is provided about current nursing fashions and how to select breast pumps and other supplies.

One chapter includes tips for nursing twins. The appendix contains valuable information about additional books on breastfeeding, health care professionals and a directory of lactation consultant services for several states. The text would be a good resource for any public library. □

Edwin S. McClain, M.D.
Indianapolis

Breastfeeding Success for Working Mothers, by Marilyn Grams, M.D., Achievement Press, Box 608, Sheridan, WY 82801, 1985, 156 pages, \$15.

Marilyn Grams, M.D., an internist, has written this book to share her knowledge and enthusiasm for breastfeeding. The book

illustrates what breastfeeding is like from the mother's point of view. It is easy to read, entertaining and informative.

This book should be useful for working or nonworking mothers. The chapter on time management is worthwhile. Two chapters, "Reverse Cycle Feeding" and "Crisis," are very educational and practical.

This book should be used only as a general guide about breastfeeding. □

■ auxiliary report

Anne S. Throop
ISMA Auxiliary

The most frequently asked question among county auxiliaries around our state is "Why pay national dues? What kind of support do we get in return for those dues dollars?" It is a legitimate question because in many ways there are no measurable benefits, unless you have the good fortune to be a part of the Confluence experience.

The setting is the Drake Hotel in Chicago, and the occasion is the Leadership Confluence, the AMA Auxiliary's semi-annual meeting that brings 200 county presidents-elect together with state presidents and presidents-elect for an in-depth training session. The Confluence experience lasts well beyond the meeting's three-day action-packed time frame and has been called the AMA Auxiliary's most valuable meeting.

At the September 1989 Confluence, the first of two in the 1989-90 auxiliary year, our Confluence participants came from counties located in all three geographical regions of the state. These auxiliary leaders will share their knowledge with their members, and the "trickle down" effect is tremendous and exciting.

Carol Marshall, the Bartholomew-Brown Auxiliary's president-elect, and Julie Burt, who will soon be the leader of the Delaware-Blackford Auxiliary, probably did not know each other be-

fore this meeting. As roommates at the Confluence, they discovered the value of sharing – be it a common problem or the new community project discussed in one of the sessions during the day.

Jinny Casey from Clark County and Marilyn Ferree from Floyd County both realized they had gained the confidence to put their leadership abilities to work.

Alexis O'Yek, Lake County North-West president-elect, and Susan Schneider from Marion County realized that there is something about the way Confluence is done – the socio-economic information, the leadership training, the emphasis on programs – that makes participants come away saying, "I can really do this. It reinforces skills you have and gives you help with those you're weak in."

The state leaders who attend will hone public speaking skills, brush up on legislative issues, discover a motivational philosophy to help during the state presidency and come away with a broader sense of what the medical auxiliary is about. Rod Ashley, the ISMA Auxiliary president-elect, and Lura Stone, ISMA Auxiliary president, readily agree.

During the three days of non-stop action, the participants attended consultations on "Effective Programming for Quality Meetings," "Building Membership: How to Work with Target Markets," "Team Efforts Between Medical Societies and Auxiliaries" and "Impairment and Well-

Being." Major topics discussed at this year's break-out sessions included "HIV/AIDS Education for Youth," "Comprehensive School Health Education," the "Health of Adolescents" and "Parenting."

Leadership Confluence II was held Feb. 4 through 6 at the Drake Hotel in Chicago and mirrored the first meeting. Indiana again was represented by county presidents-elect from all corners of the state, who have no doubt returned to their homes with their batteries recharged and a greater sense of commitment to the AMA Auxiliary.

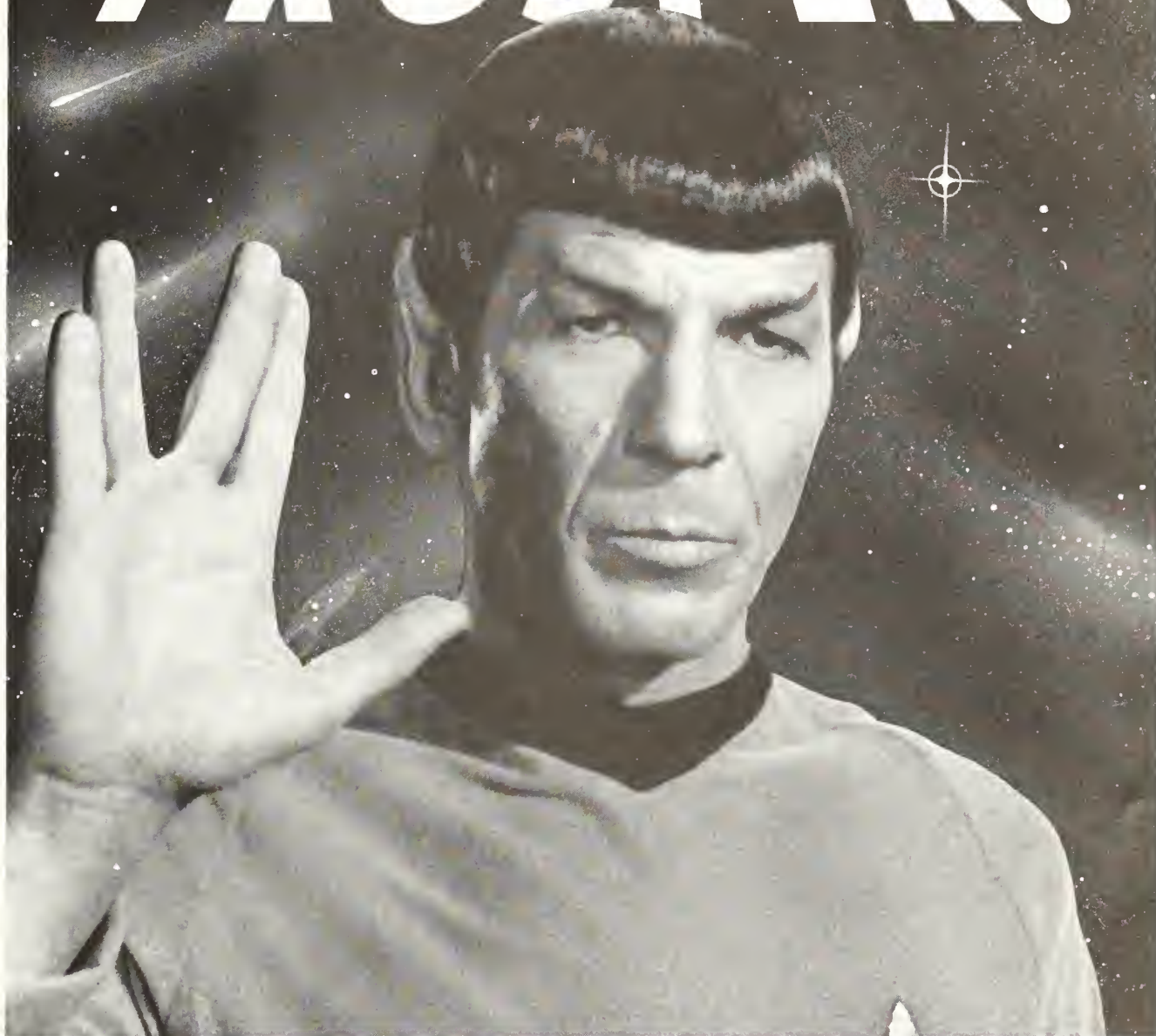
Sue Dahling from Allen County, Rose Robertson from Vanderburgh Southwest, Maribell Dehner from Wayne-Union and Phyllis Walker from Owen-Monroe County Auxiliary were looking forward to the Confluence experience. The Indiana delegation also included Nimmi Balasandiran, Grant County president-elect, Zane Lankford from Elkhart and Sue Grcevich from Porter County. State President-Elect Rod Ashley and the nominated state president-elect completed the delegation.

One member said, "When you are paying national dues to this big somebody someplace, you often don't feel you are getting anything from it. But, when you look at the display of services, you realize that the money is really being used for something that is going to benefit you."

That is the AMA Auxiliary support! □

This space contributed as a public service.

EAT RIGHT, LIVE LONG AND PROSPER.



EATING RIGHT IS HIGHLY LOGICAL.

Recommendations:

Eat high-fiber foods, such as fruits, vegetables, and whole grain products.

Eat fewer high-fat foods. Maintain normal body weight. And live long and prosper.

**CALL THE AMERICAN CANCER SOCIETY
AT 1-800-ACS-2345 FOR FREE NUTRITION INFORMATION.**



STAR TREK ® & © 1989 PARAMOUNT PICTURES CORPORATION ALL RIGHTS RESERVED. THE AMERICAN CANCER SOCIETY AUTHORIZED USER.

CARDIOLOGY – DIAGNOSTIC & INTERVENTIONAL

NASSER, SMITH AND PINKERTON CARDIOLOGY, INC.



providing

William K. Nasser, M.D.

Michael L. Smith, M.D.

Cass A. Pinkerton, M.D.

James W. VanTassel, M.D.

Dennis K. Dickos, M.D.

John D. Slack, M.D.

Charles M. Orr, M.D.

Jane Howard, M.D.

James H. Adlam, M.D.

V. Michael Bournique, M.D.

Frank J. Green, M.D.

Nancy A. Branyas, M.D.

Charles P. Taliercio, M.D.

Bruce F. Waller, M.D.

Cardiology and Cardiac Catheterization

Echocardiography

Exercise Stress Testing

Coronary Angioplasty

Nuclear Cardiology

Pacemaker Surveillance

Holter Monitoring

Percutaneous Valvuloplasty

Electrophysiologic Testing

Coronary Atherectomy

Myocardial Biopsy

Automatic Implantable Cardioverter Defibrillator

Suite 400

St. Vincent Professional Building

8402 Harcourt Road

Indianapolis, Indiana 46260

Telephones:

Office: **317-871-6666**

Toll Free:

800-732-1482 (Indiana)

800-CHD-PTCA (Indiana)

800-CAD-PTCA (National)

*PHYSICIAN
REFERRAL ONLY*

CARDIOLOGY



INDIANA HEART PHYSICIANS, INC.

Beech Grove Medical Center
112 North 17th Avenue
Suite 300
Beech Grove, IN 46107

With additional offices located in the
Indianapolis-Greenwood area and
Columbus

Indianapolis-Greenwood:
(317) 783-8800
(800) 992-2081 (Indiana Only)
Columbus:
(812) 379-2020
(800) 537-9587 (Indiana Only)

H.O. Hickman, Jr., MD, FACC
Thomas M. Mueller, MD, FACC
J. Douglas Graham, MD, FACC
Kathleen H. Flohr, PhD, MD, FACC
Jeffery F. Christie, MD
David J. Hamilton, MD
Stephen H. Kliman, MD, FACC
Thomas C. Passo, MD
Kevin C. Preuss, MD, FACC
Emily A. Diltz, MD, FACC

Cardiology and Cardiac Catheterization
Coronary Angioplasty
Balloon Valvuloplasty
Electrophysiology
Permanent Pacemaker Implantation
Nuclear Cardiology
Doppler and Echocardiography
Exercise Stress Testing
Holter Monitoring
ECG Event Monitoring
Pacemaker Surveillance
Stress Echocardiography
Noninvasive Peripheral Vascular
Evaluation



Indianapolis Cardiology Associates, Inc.

Robert E. Edmands, M.D., FACC

Samuel M. Hazlett III, M.D.

Don B. Ziperman, M.D., FACC

- Cardiology and Cardiac Catheterization
- Doppler and Echocardiography
- Exercise Stress Testing
- Coronary Angioplasty
- Pacemaker Surveillance
- Holter Monitoring

1315 North Arlington Ave.
Suite 100
Indianapolis, IN 46219
(317) 359-5301

7250 Clearvista Dr.
Suite 227
Indianapolis, IN 46256
(317) 841-5385

Physician Referral Only

CARDIOLOGY

FORT WAYNE CARDIOLOGY

Basil C. Genetos, M.D., F.A.C.C.
Robert W. Godley, M.D., F.A.C.C.
Michael J. Mirro, M.D., F.A.C.C.
Kevin J. Kelly, M.D., F.A.C.C.

Fred Doloresco, M.D., F.A.C.C.
John F. Phillips, M.D., F.A.C.C.
Patrick J. Daley, M.D., F.A.C.C.
William W. Wilson, M.D.

are pleased to announce the association of

James J. Heger, M.D., F.A.C.C.

for the practice of cardiology.

Fort Wayne Cardiology, Inc.

P. O. Box 5603
1912 Carew Street
Fort Wayne, IN 46895-5603
(219) 482-4865
1-800-637-6505 (Indiana)
1-800-334-4371 (Ohio, Michigan, Kentucky, Illinois)

CARDIOLOGY

Cardiology Consultants, P.C.

is pleased to announce its acquisition of a

Siemens 7500 Orbiter Gamma Camera

for

**Planar & SPECT Thallium
Myocardial Perfusion Imaging**

providing the latest in computer interfaced
nuclear cardiology equipment

*3000 South Wayne Avenue
Fort Wayne, Indiana 46807*

for appointments, call (219) 744-2297

Robert E. Swint, Sr., M.D., Mark A. Jones, M.D., David A. Kaminskas, M.D.,
Gary A. Hambel, M.D., Mary H. Heintz, M.D., Ravi N. Bathina, M.D.,
Gregory C. Tomlinson, M.D., & Brian T. Lew, M.D.

ORTHOPEDIC SURGERY

FRACTURE CARE/TRAUMA
SPORTS MEDICINE
ARTHROSCOPIC SURGERY
JOINT RECONSTRUCTION
SCOLIOSIS
SPINAL SURGERY
SHOULDER SURGERY
HAND SURGERY
FOOT SURGERY
PEDIATRIC ORTHOPAEDICS
ADULT ORTHOPAEDICS



OFFICE ANSWERS DAY & NIGHT

TOLL FREE IN INDIANA (800) 223-3381

DONALD S. BLACKWELL, M.D.
F.R. BRUECKMANN, M.D., F.A.C.S.
ANTHONY R. LASICH, M.D.
WILLIAM O. IRVINE, M.D.
JOSEPH C. RANDOLPH, M.D.
DONALD E. RUSSELL, M.D.
MARK R. STEVENS, M.D.
TERRY R. TRAMMELL, M.D.
ANDREW J. VICAR, M.D.
VINCENT L. FRAGOMENI, M.D.
JOHN K. SCHNEIDER, M.D.
JOSEPH R. BAELE, M.D.
SANFORD S. KUNKEL, M.D.
DAVID A. FISHER, M.D.
HENRY G. STEIN, M.D., F.A.C.S.

Orthopaedic Surgeons

MAIN OFFICE

1801 N. Senate Blvd.
Suite 200

923-5352

Appointment Scheduling 924-2778

WESTLAKE

805 Beachway Dr.

244-9499

DANVILLE

252 Meadow Dr.

745-4525

Major Credit Cards Accepted

■ physicians' directory

CRITICAL CARE

Critical Care Medicine

*Specialists
in the care of
critically ill or
injured patients*

David Powner, MD, FCCP, FCCM

Michael Buran, MD Regis Lagler, MD

Stephen Olvey, MD Daniel J. Polacek, MD



1701 North Senate Boulevard
Indianapolis, IN 46202

**For information
and patient referrals
(317) 929-5293**

After office hours for patient referrals call
929-8551 and page Critical Care Intensivist.

DOCTORS:

This space is available.

For rates, write or call
Indiana Medicine
3935 N. Meridian St.
Indianapolis, IN 46208
(317) 925-7545
1-800-969-7545 in Indiana only

NEUROLOGY

Shirley M. Mueller, M.D.

General Neurology

Pain, Headache &

Diseases of the Autonomic Nervous System Including Dizziness

Testing Available

317-871-6000

Indianapolis

North: St. Vincent's Professional Bldg. #726

South: University Heights Professional Bldg., Suite M

COLON & RECTAL SURGERY

W. M. KENDRICK, M.D.

G. A. DONNALLY, M.D.

R. JAMES WILSON, M.D.

W. E. KELLEY, M.D.

RICHARD L. STOUT, M.D.

PAULA A. HALL, M.D.

*Practice limited to Colonoscopy,
Treatment and Surgery of Rectal Diseases*

Kendrick Memorial Hospital, Inc.

Mooresville, Indiana

Tel: 317-831-9300

1-800-222-7994

(JCAH Accredited)

DOCTORS:

This space is available.

For rates, write or call: INDIANA MEDICINE, 3935 N.
Meridian St., Indianapolis, IN 46208, (317) 925-7545,
1-800-969-7545 in Indiana only.

CLINICAL & ANATOMIC PATHOLOGY



ANATOMIC PATHOLOGY/CYTOLOGY

Surgical Pathology
Gynecologic/Respiratory
and Fluid Cytology
Fine Needle Aspiration Biopsy
Performance and Interpretation

LABORATORY AND OFFICE

7430 North Shadeland Ave.
Indianapolis, IN 46250
(317) 841-0133

Edwin E. Pontius, M.D.

Director

Mary L. Forster, M.D.

Ted Bloch, M.D.

G.R. Schwenk Jr., M.D.

Robert J. Swedo, M.D.

Board Certified Pathologists

COURIER SERVICES FOR:

Physician Offices
Ambulatory Surgery Centers
Hospitals

Medicare/Medicaid Approved
(Assignments Accepted)

Blue Shield Preferred Provider
Accept Maxicare, PMA/PHA, etc.

OPHTHALMOLOGY

GARY T. RAFLO
M.D., F.A.C.S.

OPHTHALMIC
PLASTIC AND
RECONSTRUCTIVE
SURGERY



9333 NORTH
MERIDIAN
SUITE 302
INDIANAPOLIS
IN 46260
317 573 9966
800 937 9966

FELLOW AMERICAN COLLEGE OF SURGEONS
AMERICAN SOCIETY OF OPHTHALMIC PLASTIC
AND RECONSTRUCTIVE SURGERY

DIPLOMATE AMERICAN BOARD OF OPHTHALMOLOGY

SURGERY EYELID AND EYEBROW COSMETIC SURGERY
PTOSIS
EYELID AND ORBITAL TUMORS
LACRIMAL DRAINAGE DISORDERS
ORBITAL AND FACIAL TRAUMA
THYROID EYE DISORDERS

OTOLOGY

MERIDIAN OTOTOLOGY LAB

*Complete Audiometric Evaluations

*Hearing Aid Evaluations and Dispensing

*Brainstem Auditory Evoked Response

*Visual Evoked Response

*Electronystagmography

*Assistive Listening Devices—Demonstrations Available

Richard Kurtz, M.D.

Jack Summerlin, M.D.

Marvin R. Kolodny, Ph.D.

Director of Audiology

3266 N. Meridian Street Indianapolis, Indiana
Suite B12 (317) 925-7077

ALCOHOLISM TREATMENT

Indiana's Leading Hospitals Specializing In The Treatment of Alcoholism and Drug Abuse.



- adolescent program
- adult program
- family program
- older adults program
- impaired professionals program
- cocaine program
- outpatient program
- disabled program
- relapse program
- co-dependency program

OUTREACH OFFICES

Bloomington • Fort Wayne • Clarksville • Merrillville • Indianapolis • Marion
South Bend • Greenwood • Kokomo • Lafayette

Michael Chadwick, M.D.
David Gregory, M.D.
Koala Center
2223 Poshard Drive
Columbus, Indiana
(812) 376-1711

John Saalwaechter, M.D.
Koala Adolescent Center
1404 S. State Avenue
Indianapolis, Indiana
(317) 783-4084

Daniel Kubley, M.D.
Koala Center
1800 N. Oak Road
Plymouth, Indiana
(219) 936-3784

Kete Cockrell, M.D.
Koala Center
1711 Lafayette Avenue
Lebanon, Indiana
(317) 482-3711

Indiana Toll-Free • 24-Hour HELPLINE • 1-800-622-4711

ALCOHOLISM TREATMENT

Eugene G. Roach, M.D.
Executive/Medical Director



Anderson Center
of Saint John's
2210 Jackson Street
Anderson, Indiana 46016

1-800-435-9143 or (317) 646-8383

- Comprehensive Alcohol and Drug Treatment
- Separate Programs for Adolescents and Adults
- Free Assessment and Intervention

ALCOHOLISM TREATMENT

Douglas Bullington, M.D.
Program Director



COUNTERPOINT CENTER
at CPC Valle Vista Hospital
898 E. Main Street
Greenwood, IN 46143
317/887-1348

- Free evaluation and intervention
- Adult & Adolescent Treatment Services
- 24 hours a day

■physicians' directory

INTERNAL MEDICINE

NEPHROLOGY & INTERNAL MEDICINE, INC.

Thomas Wm Alley, M.D., FACP
George W. Applegate, M.D.
Richard Bloch, M.D.
Charles B. Carter, M.D.
William H. Dick, M.D., FACP

Theodore F. Hegeman, M.D.
Douglas F. Johnstone, M.D.
Wendy L. Kindig, M.D.
LeRoy H. King, Jr., M.D., FACP
Mary A. Margolis, M.D.
Tim E. Taber, M.D.

1801 N. Senate Blvd., Suite 355
Indianapolis 46202
Tel: 317-924-8425

By Physician Referral

Answering Service 926-3466

Clinical Nephrology, Hemodialysis, Peritoneal Dialysis, Renal Transplantation, Metabolic Kidney Stone Disease, Hypertension, Fluid and Electrolyte Imbalance, Critical Care

HEMODIALYSIS

CHRONIC MAINTENANCE OUTPATIENT HEMODIALYSIS

DIALYSIS INSTITUTE OF ANDERSON
2629 Nichol Avenue
Anderson, Indiana 46011
317-649-0772

DIALYSIS INSTITUTE OF BEECH GROVE
3834 South Emerson Avenue
Indianapolis, Indiana 46203
317-787-3171

DIALYSIS INSTITUTE OF KOKOMO
Community Medical Arts Center
3611 South Reed Rd. (31 Bypass)
Kokomo, Indiana 46902
317-453-0606

For further information contact
NEPHROLOGY & INTERNAL MEDICINE, INC.
1801 N. Senate Blvd., Suite #355
Indianapolis, Indiana 46202
317-924-8425

Outpatient renal consultation may be
scheduled at any location.

HAND SURGERY

JOHN C. KLEIN, M.D.

Specializing in the diagnosis and treatment of hand,
wrist, and forearm disorders.

2727 N. Pennsylvania St.
Indianapolis, IN 46205

317-925-1665
Answered 24 hours

Diplomate American Board of Orthopedic Surgery
with certificate of added qualifications in surgery of the hand.

HEMATOLOGY - ONCOLOGY

JOHN A. CAVINS, M.D.

8220 NAAB ROAD, SUITE 105
INDIANAPOLIS, INDIANA 46260
TELEPHONE (317) 876-1036

SERVING
INDIANAPOLIS CARMEL NOBLESVILLE

DERMATOPATHOLOGY

DERMATOPATHOLOGY LABORATORY

Larry J. Buckel, M.D.
Robert M. Hurwitz, M.D.

Howard R. Gray, M.D.
William B. Moores, M.D.



Diplomates of the American Boards
of
Dermatology and Dermatopathology

Specializing in
Inflammatory Skin Diseases
and
Neoplasms of the Skin

9202 North Meridian Street
Suite 215

Approved for and Accept
Medicare and Medicaid
Assignment

Indianapolis, Ind. 46260
(317) 843-2204

UPS Mailers and Courier Service Available

PSYCHIATRY

PSYCHIATRY

Eugene G. Roach, M.D.
Executive/Medical Director



Anderson Center

of Saint John's
2210 Jackson Street
Anderson, Indiana 46016

1-800-435-9143 or (317) 646-8114

- Comprehensive Psychiatric Treatment
- Separate Programs for Adolescents, Adults and Older Adults
- Program for Dual Diagnosis

Davis Psychiatric Clinic, Inc.

1431 North Delaware Street
Indianapolis, Indiana 46202
317/634-9930

Larry M. Davis, M.D.
R. Peter Mohlman, M.D.
Judith L. Campbell, M.D.

Comprehensive Child, Adolescent, Adult Psychiatry
Sexual Therapy, Crisis Intervention
Alcohol and Substance Abuse

PERIPHERAL VASCULAR SURGERY



VASCULAR SURGERY, P.C.

Austin L. Gardner, M.D.
Malcolm B. Herring, M.D.
Daniel R. LeGrand, M.D.
David L. Madison, M.D.
Spencer F. Goodson, M.D.

Vascular
Diagnostics
— Mobile
— Non-invasive
— Testing™

St. Vincent Professional Building
8402 Harcourt Road
Suite 613
Indianapolis, Indiana 46260
Telephone (317) 871-6400
TOLL FREE (800) 662-5367

Carmel Medical Center
13450 North Meridian Street
Suite 160
Carmel, Indiana 46032
Telephone (317) 573-7040
TOLL FREE (800) 446-0298



The Vascular Lab

**NONINVASIVE
VASCULAR TESTING**

The vascular lab offers a full spectrum of diagnostic vascular testing services, including the new addition of color computed sonography, supported by the entire team of:

**John F. Ansbro, M.D. • Alan T. Marty, M.D. • Herbert Dan Adams, M.D.
Richard A. Murrell, M.D. • Daniel B. Daniels, M.D.**

Cardiovascular Surgery Inc.

350 West Columbia
Suite 350
Evansville, Indiana 47710
812-423-2395

■physicians' directory

BREAST DISEASES

INDIANA CENTER FOR BREAST DISEASES

DAVID W. PRICE, M.D.

Practice limited to Multidisciplinary Treatment of
BREAST DISEASES

Diagnosis	(317) 872-9580
Consultation	8330 Naab Road, Suite 213
Treatment options	Indianapolis, IN 46260
Preservation surgery	
Long-term followup	Appointment by referral

ABDOMINAL SURGERY

TED W. GRISELL, M.D.

*Providing consultative services
for physicians throughout Indiana
for patients with
complex management problems*

5317 East 16th Street	317-359-8261
Indianapolis 46218	Phone answered 24 hours

DOCTORS:

This space is available.

For rates, write or call
Indiana Medicine
3935 N. Meridian St.
Indianapolis, IN 46208
(317) 925-7545
1-800-969-7545 in Indiana only

PLASTIC SURGERY

GARY T. RAFLO
M.D., F.A.C.S.

OPHTHALMIC
PLASTIC AND
RECONSTRUCTIVE
SURGERY



9333 NORTH
MERIDIAN
SUITE 302
INDIANAPOLIS
IN 46260

317 573 9966
800 937 9966



JOHN G. PANTZER JR., M.D.

Fellow
American College of Surgeons
Diplomate
American Board of Plastic Surgery
1801 North Senate Blvd
Suite 735
Indianapolis, Indiana 46202
Tel: 317-929-5500

ASTHMA & ALLERGY

MARK HOLBREICH, M.D.

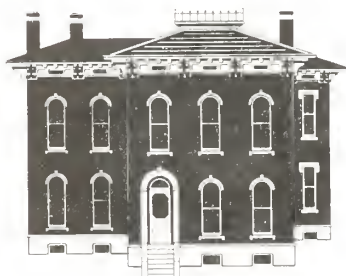
**PEDIATRIC AND ADULT
ASTHMA, ALLERGY AND IMMUNOLOGY**

8803 N. Meridian St.
Suite 365
Indianapolis, Indiana
(317) 574-0230

- | | |
|-----------------|---------------------------|
| ○ Asthma | ○ Adverse Food Reactions |
| ○ Chronic Cough | ○ Drug Sensitivity |
| ○ Rhinitis | ○ Stinging Insect Allergy |

ONCOLOGY — HEMATOLOGY

INDIANA ONCOLOGY-HEMATOLOGY CONSULTANTS



ADULT ONCOLOGY HEMATOLOGY

Laurence H. Bates, M.D.
William H. Bond, M.D.
William M. Dugan, M.D.
Redmond P. Hogan, M.D.
Gregory W. Smith, M.D.

PEDIATRIC ONCOLOGY HEMATOLOGY

Deborah S. Provisor, M.D.

1828 N. ILLINOIS
INDIANAPOLIS
INDIANA 46202

PHONE: 317/927-5770
TOLL FREE: 1-800-ONC-HEME
1-800-662-4363

*Located in the Byram Gates Middleton House
Listed on the National Register of Historic Places*

RADIATION ONCOLOGY



Physicians:
ROGER ROBISON
DAVID BELL
TAE CHUNG

Radiation Oncology Services for Southwest Indiana

TERRE HAUTE
Regional Hospital
(812) 234-7756

VINCENNES
Good Samaritan Hospital
(812) 885-3939

ROGER ROBISON, M.D., F.A.C.P.
M.D. Anderson, 1980
Certified: Radiation
Oncology
Medical Oncology

DAVID BELL, M.D., Ph.D.
M.D. Anderson, 1981
Certified: Radiation
Oncology

TAE CHUNG, M.D.
Chicago Hines, V.A., 1976
Certified: Radiation
Oncology

RADIATION ONCOLOGY

TRI-STATE RADIATION ONCOLOGY

Evansville
Cancer Center
Evansville, Indiana
(812) 474-1110



Welborn
Cancer Center
Evansville, Indiana
(812) 426-8373

AL KORBA, M.D.; ALY RAZEK, M.D.;
THOMAS HAYES, M.D.; AMR AREF, M.D.; SHANNON LAMB, M.D.

★ ★ ★ ★ ★

Tri-County Cancer Care Center
Jasper, Indiana
(812) 482-2212

DEVDA S SHETH, M.D.

Tri-County Cancer Care Center
Princeton, Indiana
(812) 386-6663

MOISES DOMINGO, M.D.

★ ★ ★ ★ ★

Olney Cancer Center
Olney, Illinois
(618) 392-3050

MOISES DOMINGO, M.D.

Harrisburg Oncology Associates
Harrisburg, Illinois
(618) 252-5126

MANJU GUPTA, M.D.

★ ★ ★ ★ ★

Radiation Oncology
Owensboro, Kentucky
(502) 926-7228

TRISTAN BRIONES, M.D.

Henderson Cancer Center
Henderson, Kentucky
(502) 827-0255

AMR AREF, M.D.

★ ★ ★ ★ ★

In Indiana 1-800-843-7117
Out of Indiana 1-800-331-9294
24-hour answering service (812) 476-1367

ONCOLOGY

Indiana Regional **Cancer Center**

Science made Human.SM

Medical Oncology And Hematology

L.K. Everson, M.D.

Andrew Ross
Greenspan, M.D.

Shivaji Gunale, M.D.

Keith Logie, M.D.

M.S. Murali, M.D.

Radiation Oncology

Nini Bermudez-Webb, M.D.

Thomas O'Connor, M.D.

Palliative Care

Neil Irick, M.D.



Community Hospitals Indianapolis

(317) 353-4758

PHYSICAL MEDICINE & REHABILITATION

Physician's Back Pain Clinic, P.C.

A medical team approach to musculoskeletal and spinal pain disorders offering physical therapy, therapeutic exercise and manual manipulation.

DIAGNOSTIC ELECTROMYOGRAPHY

- Personal injury • Workman's compensation
- Impairment rating • Disability evaluation

350 WEST COLUMBIA • SUITE 100 • EVANSVILLE, INDIANA 47710 • 812/425-2662

————— *Board Certified* —————

Clint Mallari, M.D. • Laurance Silverman, M.D.
David Wm. Johnson, M.D.

ORTHOPAEDIC SURGERY

JAMES L. KAISER, M.D.



- ORTHOPAEDIC SURGERY
- FRACTURES
- BACK SURGERY
- FOOT SURGERY
- ARTHROSCOPIC SURGERY

Certified American Board
Of Orthopaedic Surgery

5626 East 16th Street
Indianapolis, IN 46218

(317) 352-0176

OFFICE ANSWERS DAY & NIGHT

5626 E 16
82nd & Shadeland
If No Answer Call

352-0176
352-0176
543-6089

DOCTORS:

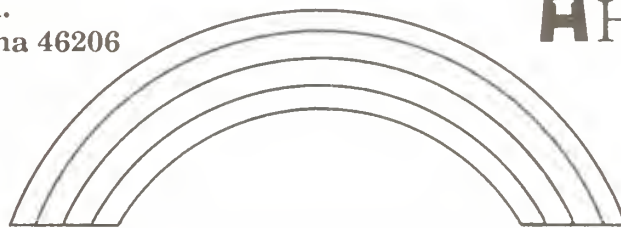
This space is available.

For rates, write or call
Indiana Medicine
3935 N. Meridian St.
Indianapolis, IN 46208
(317) 925-7545
1-800-969-7545 in Indiana only

TRANSPLANTATION

METHODIST TRANSPLANT CENTER

P.O. Box 1367
1701 N. Senate Blvd.
Indianapolis, Indiana 46206



24 - HOUR REFERRAL

(317) 929-8677

(800) 772-7788

HEART TRANSPLANTATION

Surgical Director
Harold Halbrook, M.D.
Program Cardiologist:
Douglas Pitts, M.D.

LUNG TRANSPLANTATION

Surgical Director
Harold Halbrook, M.D.
Program Pulmonologist:
Michael Niemeier, M.D.

**KIDNEY TRANSPLANTATION
PANCREAS TRANSPLANTATION**

Surgical Director
Brian Haag, M.D.
Program Nephrologist:
Charles Carter, M.D.

LIVER TRANSPLANTATION

Surgical Director
Dale A. Rouch, M.D.
Program Gastroenterologists:
Peds - Vanessa Z. Ameem, M.D.
Adult - Brian G. Sperl, M.D.

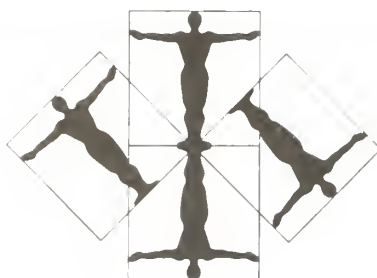
CORNEAL TRANSPLANTATION

Surgical Director
Stephen Johnson, M.D.

TISSUE/BONE BANK

Medical Director
David A. Fisher, M.D.

ORTHOPAEDICS & SPORTS MEDICINE



Hoosier Orthopaedics & Sports Medicine, P.C.

Total Joint Replacement
Athletic Injuries and Sports
Medicine

Arthroscopic Surgery
Pediatric and Adult Orthopaedics
Fracture Care/Trauma

Reconstructive Surgery of the Foot
and Ankle

Reconstructive Surgery of the
Shoulder or Knee

Back Surgery
General Orthopaedics

Robert T. Clayton, M.D.

Robert E. Cravens, M.D.

John E. Garber, M.D.

Robert M. Palmer, M.D.

Stephen B. Sexson, M.D.

Frank B. Throop, M.D.

Thomas F. Trainer, M.D.

Office Answers Day and Night

2020 West 86th Street • Suite 304, Indianapolis, Indiana 46260 (317) 872-3364

8330 Naab Road • Suite 234, Indianapolis, Indiana 46260 (317) 872-3254

OFFICERS

President — George H. Rawls, Indianapolis
 Pres-elect — Michael O. Mellinger, LaGrange
 Immediate Past Pres — Fred W. Dahling, New Haven
 Executive Director — Richard R. King, Indianapolis
 Treasurer — Max M. Wesemann, Franklin
 Asst. Treasurer — John A. Biral, Evansville
 Speaker — C. Dyke Egnatz, Schererville
 Vice Speaker — William H. Beeson, Indianapolis

EXECUTIVE COMMITTEE

*George H. Rawls, Indianapolis
 Michael O. Mellinger, LaGrange
 Fred W. Dahling, New Haven
 Max M. Wesemann, Franklin
 John A. Biral, Evansville
 William C. Van Ness II, Summitville
 William E. Cooper, Columbus
 Clarence G. Clarkson, Richmond
 C. Dyke Egnatz, Schererville
 William H. Beeson, Indianapolis

TRUSTEES (Terms end in October)

District
 1 — Tom M. Harmon, Evansville (1992)
 2 — Paul J. Wenzler, Bloomington (1990)
 3 — Gordon L. Gutmann, Jeffersonville (1991)
 4 — William E. Cooper, Columbus (1992)
 5 — Fred E. Haggerty, Greencastle (1990)
 6 — Clarence G. Clarkson, Richmond (1991)
 7 — Donna J. Meade, Indianapolis (1992)
 7 — John M. Records, Franklin (1990)
 7 — Peter L. Winters, Indianapolis (1991)
 *8 — Wm. C. Van Ness, Summitville (1990)
 9 — R. Adrian Lanning, Noblesville (1991)
 10 — Nicholas L. Polite, Hammond (1992)
 11 — Jack W. Higgins, Kokomo (1990)
 12 — John R. Thomas, Fort Wayne (1991)
 13 — Alfred C. Cox, South Bend (1992)
 RMS — John H. Fallon, Indianapolis (1990)
 MSS — Todd Rumsey (1990)
 *Chairman

ALTERNATE TRUSTEES (Terms end in October)

District
 1 — Bruce W. Romack, Evansville (1991)
 2 — Jerome E. Melchior, Vincennes (1992)
 3 — Richard P. Gardner, New Albany (1992)

4 — George L. Alcorn, Madison (1991)
 5 — Roland M. Kohr, Terre Haute (1991)
 6 — Ray A. Haas, Greentfield (1992)
 7 — Ronald G. Blankenbaker, Indianapolis (1991)
 7 — Willis W. Stogsdill, Indianapolis (1991)
 7 — Charles O. McCormick III, Greenwood (1991)
 8 — John V. Osborne, Muncie (1991)
 9 — Stephen D. Sharp, Frankfort (1992)
 10 — Frank M. Sturdevant, Valparaiso (1991)
 11 — Laurence K. Musselman, Marion (1992)
 12 — Charles M. Frankhouser, Fort Wayne (1992)
 13 — Richard J. Houck, Michigan City (1991)
 RMS — Lynn L. Wittv, Anderson (1990)
 MSS — Carla Brumbaugh, Indianapolis (1990)

AMA DELEGATES (Terms end Dec. 31)

Marvin E. Priddy, Fort Wayne (1991)
 Peter R. Petrich, Attica (1991)
 Herbert Khalouf, Marion (1991)
 John A. Knot, Lafayette (1990)
 Alvin J. Haley, Carmel (1990)
 George T. Lukemeyer, Indianapolis (1990)

AMA ALTERNATE DELEGATES (Terms end Dec. 31)

John D. MacDougall, Beech Grove (1991)
 William C. Van Ness II, Summitville (1991)
 Richard L. Reedy, Yorktown (1991)
 Shirley Thompson Khalouf, Marion (1990)
 Max N. Hoffman, Covington (1990)
 Edward L. Langston, Indianapolis (1990)

DISTRICT OFFICERS AND MEETINGS

1 — Pres: Tatt W. Roe, Evansville
 Secy: Richard T. Tibbals, Evansville
 Annual Meeting, 1990
 2 — Pres: Betty J. Dukes, Dugger
 Secy: Steve Du Pre, Sullivan
 Annual Meeting, 1990
 3 — Pres: Richard P. Gardner, New Albany
 Secy: C. M. Hocker, New Albany
 Annual Meeting, May 9, 1990
 4 — Pres: Howard C. Jackson, Madison
 Secy: Warren R. Rucker, Madison
 Annual Meeting, May 2, 1990
 5 — Pres: Roland M. Kohr, Terre Haute
 Secy: Peggy Sankey-Swaim, Rockville
 Annual Meeting, Sept. 27, 1990
 6 — Pres: Daniel P. Rains, New Castle
 Secy: Dennis L. Roberts, Shelbyville

Annual Meeting, May 9, 1990
 7 — Pres: George A. Domally, Mooresville
 Secy: 11 Marshall Trusler, Greentfield
 Annual Meeting, 1990
 8 — Pres: Susan K. Pyle, Union City
 Secy: Jerome M. Leahey, Union City
 Annual Meeting, June 6, 1990
 9 — Pres: Peter R. Petrich, Attica
 Secy: R. Adrian Lanning, Noblesville
 Annual Meeting, June 13, 1990
 10 — Pres: Thomas A. Brubaker, Munster
 Secy: Barron M. Palmer, Hammond
 Annual Meeting, June 20, 1990
 11 — Pres: James E. Duncan, LaFontaine
 Secy: Fred C. Poehler, La Fontaine
 Annual Meeting, Sept. 19, 1990
 12 — Pres: Mark S. Souder, Auburn
 Secy: John A. Egli, Topeka
 Annual Meeting, Sept. 20, 1990
 13 — Pres: Thomas J. Eberts, South Bend
 Secy: John W. Schurz, South Bend
 Annual Meeting, Sept. 12, 1990

COMMISSION CHAIRMEN

Constitution and Bylaws
 Helen E. Czenkusch, Indianapolis
Legislation
 Eugene G. Roach, Anderson
Physician Assistance
 Dolores Burant, Elkhart
Medical Services
 Dallas E. Coate, Lebanon
Medical Education
 James E. Carter, Indianapolis
Sports Medicine
 Ronald G. Blankenbaker, Indianapolis

COMMITTEE CHAIRMEN

Medical Malpractice (Ad Hoc)
 George T. Lukemeyer, Indianapolis
Grievance
 G. Beach Gattman, Elkhart
Future Planning
 Alvin J. Haley, Indianapolis
Indiana Medical Foundation
 Frank B. Ramsey, Indianapolis

CHAIRMEN OF ISMA SPECIALTY SECTIONS

ALLERGY
 Paul D. Isenberg, Indianapolis
ANESTHESIOLOGY
 Stephen F. Dierdorf, Indianapolis
CUTANEOUS MEDICINE
 Peter L. Winters, Indianapolis
DIRECTORS MEDICAL EDUCATION
 Stephen Jay, Indianapolis
EMERGENCY MEDICINE
 Thomas C. Madden, Greenwood
FAMILY PRACTICE
 Dallas E. Coate, Lebanon
INTERNAL MEDICINE
 Paul T. Batties, Indianapolis
MEDICAL DIRECTORS AND STAFF PHYSICIANS OF NURSING FACILITIES
 Hugh K. Thatcher, Indianapolis
NEUROLOGICAL SURGERY
 Marvin R. Bernard, Merrillville
NEUROLOGY
 Charles A. Bonsett, Indianapolis
NUCLEAR MEDICINE
 Mike Mullinix, Indianapolis

OBSTETRICS & GYNECOLOGY
 Philip N. Eskew Jr., Carmel
OPHTHALMOLOGY
 D. Dean Cofield, Bloomington
ORTHOPEDIC SURGERY
 James G. Buchholz, Fort Wayne
OTOLARYNGOLOGY, HEAD & NECK SURGERY
 William F. Cooper, Columbus
PATHOLOGY & FORENSIC MEDICINE
 Arthur C. Jay, Columbus
PEDIATRICS
 Michael A. Hogan, Indianapolis
PHYSICAL MEDICINE AND REHABILITATION
 Arden Pletzer, Anderson
PREVENTIVE MEDICINE AND PUBLIC HEALTH
 Gary A. Babcock, Chesterton
PSYCHIATRY
 Patricia Sharpley, Indianapolis
RADIOLOGY
 Daniel R. Elliott, Indianapolis
SURGERY
 Ted W. Gnsell, Indianapolis
UROLOGY
 Earl H. Johnson, Indianapolis

ISMA KEY STAFF

Richard R. King, *Executive Director*
 Michael Huntley, *Director of Member Services*
 John Wilson, *Director of Finance, Resident Medical Society*
 Adele Lash, *Director of Communications*
 Mike Abrams, *Interim Director of Government Relations*
 Ronald Dyer, *General Counsel*
 Richard Ryan, *Field Services*
 Bob Sullivan, *Field Services*
 Janna Kosinski, *Field Services*
 Dana Wallace, *Computer Services*
 Susan Grant, *Executive Assistant*
 Mary Alice Cary, *Executive Assistant*
 Rosanna Iler, *Membership, Auxiliary, Students*
 Tom Martens, *Members Health Insurance, CME Coordinator*
 Carolyn Downing, *Specialty Society Services*
 Tina Sims, *INDIANA MEDICINE*

■ news briefs

Child care conference set

The 25th annual Indiana Multidisciplinary Child Care Conference will be May 16 and 17 at the Hyatt Regency Hotel in downtown Indianapolis.

Speakers and the subjects they will discuss are:

- Melvin Levine, M.D., learning disorders;
- G. Paul DeRosa, M.D., Thomas Kling, M.D., and Richard Lindseth, M.D., pediatric orthopaedics;
- Ron Rosenfeld, M.D., pediatric endocrinology;
- Jerry Bergstein, M.D., and Sharon Andreoli, M.D., pediatric renal problems;
- James Todd, M.D., pediatric infectious disease;
- Alfred Healy, M.D., Marilyn Bull, M.D., Nancy Dodge, M.D., John Rau, M.D., and John Poncher, M.D., care of the handicapped child; and
- Mary-Ann Shafer, M.D., and Donald Orr, M.D., adolescent medicine.

For more information, write Richard L. Schreiner, M.D., Chairman, Department of Pediatrics, Indiana University School of Medicine, 702 Barnhill Dr., Indianapolis, IN 46202-5225.

Video focuses on influenza

Cause of Death: Influenza, a one-hour video that examines the elusive influenza virus, is available on free loan from West Glen Films.

The two-part program, which also examines the impact of influenza on the nation's health and financial welfare, was created and developed by Professional Postgraduate Services of North Amer-

ica. It is funded by an educational grant from DuPont Pharmaceuticals, which is solely responsible for its content.

The Cornell University Medical College designated this program as one credit hour in Category II of the Physician's Recognition Award of the American Medical Association.

The video is available in 3/4-inch U-matic, 1/2-inch VHS and 1/2-inch Beta videocassette formats and is accompanied by a kit of teaching aids. To order, write West Glen Films, 1430 Broadway, New York, NY 10018-3396 or call (212) 921-2800.

BSU study finds inaccuracies in cholesterol tests

A Ball State University study recently found that there is up to a 25% chance that the results of cholesterol tests are not accurate.

The study indicates that although the most widely used cholesterol screening machine works well, blood samples must be tested more than once to assure accurate results, said Leonard Kaminsky, a fitness researcher at Ball State's Human Performance Laboratory.

Kaminsky said the common practice is to analyze blood samples only once to determine cholesterol levels. His study found, however, that tests may report cholesterol levels too high or too low.

Hip fractures in elderly linked to type of tranquilizer

The risk of hip fractures can be reduced by eliminating or changing the type of tranquilizers commonly prescribed for older

people. This information was reported in a recent study supported by the National Institute on Aging (NIA).

Researchers from the Vanderbilt University School of Medicine in Nashville, Tenn., found that users of the minor tranquilizers that stayed in the body for 24 hours or longer had a 70% greater risk of hip fracture than people not using any psychotropic drug. Shorter-acting tranquilizers, those staying in the body less than 24 hours, were associated with a much lower risk of hip fracture than the longer-acting medications.

Firm responds to HCFA hospital mortality figures

Mortality statistics are not the only indicators of health care quality, according to a report from Press, Ganey Associates Inc., a South Bend firm specializing in patient satisfaction monitoring for health care organizations.

"Overall quality of care should not be judged on the basis of a single outcome such as mortality," said Irwin Press, co-director of Press, Ganey, in response to the latest hospital mortality figures released from the Health Care Financing Administration. "The vast majority of hospital patients don't die. It follows that other outcomes more realistically reflect ongoing, day-to-day quality of care." Such outcomes include degree of continuing problem, disability or discomfort, as well as positive or negative patient perceptions of the care received.

Press also said, "Patient satisfaction is a more important indicator of overall quality on a day-to-day basis than is mortality rate." □

John J. Farris, M.D.

Dr. Farris, 70, a retired Indianapolis physician and a founding member of St. Vincent Hospital's emergency department, died Dec. 14.

He was a 1944 graduate of the Indiana University School of Medicine and an Army veteran of World War II.

Dr. Farris practiced medicine at St. Vincent's emergency department 14 years and was director of personnel health there for five years before retiring in 1989. He was a member of the American Geriatrics Society.

Jury B. Loving, M.D.

Dr. Loving, 93, of New Goshen died Nov. 22 at Union Hospital in Terre Haute.

He was a 1922 graduate of the Medical College of Virginia and a member of the American Academy of Family Physicians.

Dr. Loving practiced medicine

more than 60 years before retiring. He was a member of the ISMA Fifty Year Club.

Alvin T. Stone, M.D.

Dr. Stone, 76, a retired Indianapolis family practitioner, died Dec. 7 at Methodist Hospital in Indianapolis.

He was a 1939 graduate of the Harvard Medical School and an Army veteran of World War II.

Dr. Stone practiced medicine in Indianapolis 36 years before retiring in 1982. He was a past delegate of the Marion County Medical Society and a member of the ISMA Fifty Year Club and the American Academy of Family Physicians.

Eleanor A. Walters, M.D.

Dr. Walters, 75, a retired Gary surgeon, died Nov. 27.

She graduated from the Chicago Medical School in 1950 and was the first woman physician on the

Gary Board of Health.

Dr. Walters was a lifetime member of the American Medical Women's Association. She also held a bachelor's degree in music from Indiana University and a master's degree in psychology from Northwestern University.

Norbert M. Welch, M.D.

Dr. Welch, 82, a retired Vincennes urologist, died Nov. 18 in Joplin, Mo.

He was a 1944 graduate of the Indiana University School of Medicine and a member of the American College of Surgeons and the American Urological Association. He was certified by the American Board of Urology.

Dr. Welch practiced medicine in Vincennes 27 years before retiring in 1976. He was a past president of the Knox County Medical Society, the Good Samaritan Hospital medical staff and the Vincennes Chamber of Commerce. □

Memorials: Indiana Medical Foundation

The Indiana Medical Foundation Inc., was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of INDIANA MEDICINE. Contributions made to the foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for federal estate and gift tax purposes.

The foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

J. Melvin Masters, M.D.
Nancy A. Roeske, M.D.
Richard Sharp

John W. Beeler, M.D.
Mildred Ramsey
Earl Mericle, M.D.

John Bush
Dallas McKelvey

■ people

Dr. John H. Abrams, an Indianapolis ophthalmologist, spoke on "The Differential Diagnosis and Treatment of Red Eye" at the annual fall symposium of the Indiana Academy of Physician Assistants held Nov. 4 in Nashville, Ind.

Dr. Hans R. Wilbrandt, an Indianapolis ophthalmologist, presented a videotape titled "Minicapsulorhexis for Intercapsular Phacoemulsification Assures Intraocular Lens Centration," at the European Intraocular Lens Implant Council meeting held last August in Zurich, Switzerland.

Dr. Stephen W. Perkins of Indianapolis was appointed chairman of the Public Information Committee for the American Academy of Facial Plastic and Reconstructive Surgery (AAFPRS); he also will represent the AAFPRS on the Board of Governors of the American Academy of Otolaryngology-Head and Neck Surgery.

Dr. Rex H. Ragsdale has been named director of medical affairs at Deaconess Hospital in Evansville; he most recently was medical director of St. Mary's Medical Center's Continuing Care Division and operated a private practice in Newburgh.

Dr. Karl L. Manders of Neurosurgical Associates of Indiana in Indianapolis published a paper titled "Lumbar Disorders: When and When Not To Operate" in the September issue of *Seminars of Neurology*.

Drs. George W. Sorrells of Bedford and **Wendell A. Riggs** of Lafayette attended the annual meeting of the American Academy of Pediatrics in Chicago.

Dr. William A. Koontz retired Dec. 1 after 41 years as a family practice physician in Gas City.

Dr. Daniel R. Johnson, a

Physician Recognition Award recipients

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Adkins, Stanley R., Columbus
Bakane, Ramesh B., Marion
Biegel, Angenieta A., Indianapolis
Bolinger, Garry L., Indianapolis
Cook, Dean L., Elkhart
Edwards, Daniel J., Marion
Elsaharty, Salah A., Anderson
Finrock, James D., Elkhart
Galup, Luis N., South Bend
Greenwood, Charles W., Columbus

Kelly, Caitilin, Bloomington
Maxam, B.T., Indianapolis
Micon, Larry T., Indianapolis
Nelson, Carl A., West Lebanon
Prasad, Mridula R., Merrillville
Reider, Jeffrey I., Indianapolis
Riedford, Richard A., Muncie
Schalliol, James P., Rochester
Sheehy, Joseph C., Columbus
Steiman, David L., Indianapolis
You, Kwang-Duck, Munster

Crawfordsville orthopaedic surgeon, was appointed to the Culver Union Hospital board of directors.

Dr. Kambiz Karimi, an Indianapolis internist, was named medical director of the Frame House Manor Health Care Center in Indianapolis.

Dr. William J. Bowen, an Anderson general, thoracic and peripheral vascular surgeon, and **Drs. Noaman N. Botros, Monte L. Cordray** and **Samuel B. Van Ledingham**, all of Terre Haute, were named fellows of the American College of Surgeons.

Dr. Bharat H. Barai, Merrillville, was named president of the medical staff at the Methodist Hospitals in Gary.

Dr. Linda C. McQuinn, an emergency physician at Parkview Hospital in Fort Wayne, was appointed chairman of the State Emergency Medical Services Commission.

Dr. Marc A. Ralston, a Lafayette ophthalmologist, was selected to be an examiner for the American Board of Ophthalmology.

Dr. Frederick H. Evans, an Indianapolis otolaryngologist, retired Dec. 1.

Dr. Bruce Kephart, a Bluffton obstetrician and gynecologist, has retired; he pioneered fetal monitoring in the 1950s and 1960s and helped develop the birthing room at the Caylor-Nickel Medical Center.

Dr. Dana O. Troyer retired from his Goshen ophthalmology practice Dec. 15; however, he plans to devote some time as an overseas missionary physician. □

New ISMA members

Robert O. Bigler, M.D., Lafayette, anesthesiology.

Jihad Bitar, M.D., LaPorte, cardiovascular diseases.

Brian S. Brunck, M.D., New Castle, general surgery.

Kenneth J. Crane, M.D., Clinton, anesthesiology.

Sharon S. Harig, M.D., Hobart, internal medicine.

Marc E. Keen, M.D., Michigan City, anatomic/clinical pathology.

Richard E.B. Larew, M.D., Lafayette, internal medicine.

William K. Mayfield, M.D., Martinsville, obstetrics and gynecology.

David L. Racette, M.D., Lafayette, general surgery.

Linda M. Ramsey, M.D., Evansville, obstetrics and gynecology.

James Reeder, M.D., Lafayette, pediatrics.

Charles Rossmann, M.D., Huntingburg, obstetrics and gynecology.

Gary J. Schreiber, M.D., Hammond, internal medicine.

Kurt W. Sprunger, M.D., Muncie, general surgery.

Matthew B. Teolis, D.O., Chicago, family practice.

Marvin D. Walker, D.O., Fort

Wayne, radiology.

Gerald W. Wehr, M.D., West Lafayette, pediatrics.

Barbara L. Williams, M.D., South Bend, internal medicine. □

Correction

Dr. Gerald C. Walthall is an Indianapolis otolaryngologist. His specialty was listed incorrectly in the December issue of INDIANA MEDICINE. □



CREATE A MEDICAL BREAKTHROUGH.

Become an Air Force physician and find the career breakthrough you've been looking for.

- No office overhead
- Dedicated, professional staff
- Quality lifestyle and benefits
- 30 days vacation with pay per year

Today's Air Force provides medical breakthroughs. Find out how to qualify as a physician or physician specialist. Call

USAF HEALTH PROFESSIONS
317-848-5830
COLLECT



■ classifieds

THREE-PHYSICIAN family practice group seeking to add fourth associate in Columbus, Ind. First year guarantee salary plus opportunity for additional income. Contact: Larry F. Schneider, M.D., 2030 Doctors Park Drive, Columbus, IN 47203, (812) 372-5325 or (812) 372-8293.

CARDIOLOGIST – Developing second group of cardiologists for 50,000+ Kentucky city. Private hospital will provide beautiful office space, income guarantee and other benefits. The community offers four colleges, a Midwestern atmosphere and a host of family activities including indoor ice arena, symphony orchestra and excellent golf. Call Dawn O'Steen at 1-800-526-3644 or write E. G. Todd Associates, 3475 Lenox Road, Suite 435, Atlanta, GA 30326.

PHYSICIAN, PART-TIME – Indianapolis, near downtown area. Physician needed for evaluation and treatment of minor injuries in an industrial setting on a part-time basis. Salary and benefits negotiable. Send credentials and vitae to: Sherry Andrews, R.N., Box 2327, Indianapolis, IN 46206.

FOR SALE – M-B 560SL, smoke silver metallic, burgundy leather hard and black soft tops, 780 miles. (317) 253-7280 evenings.

INTERNIST/FAMILY PRACTICE – Available July 1990. Accredited ambulatory care facility provides medical services to student clientele. Full-time, 11-month position. Competitive salary/benefit package and 40-hour week. Qualifications: M.D./D.O. degree, ability to obtain Illinois license, current DEA registration and board eligible/certified. Search continued until position filled. Contact Glenn Weiss, Medical Director, Student Health Service, Illinois State University, Normal, IL 61761, (309) 438-8655. Women and minorities are encouraged to apply. Affirmative Action/Equal Opportunity Employer.

MEDICAL DIRECTOR - CONTINUING MEDICAL EDUCATION – Outstanding opportunity for a BE/BC physician to direct internal and external continuing medical education at Methodist Hospital of Indiana, Inc., a 1,100-bed community teaching hospital in Indianapolis. Position requires excellent communication skills, recent clinical experience and commitment to postgraduate medical education. Excellent compensation package. Send CV and cover letter to Melodie McBride, Secretary, Search and Screen Committee, Academic Affairs, Methodist Hospital of Indiana, Inc., 1701 N. Senate Blvd., Indianapolis, IN 46202.

FAMILY PHYSICIAN wanted to join two-man group in northeast Indiana. Salary guarantee plus opportunity for additional income. Contact Paul D. Steenburg, M.D., 165 W. Water St., Berne, IN 46711, (219) 589-8070 daytime or (219) 368-7431 evenings.

STAFF DERMATOLOGIST: Growing, prosperous hospital organization in Michigan. BC/BE. Excellent compensation benefit package, including relocation assistance, liberal vacation and CME. **ASSOCIATE MEDICAL DIRECTOR:** Psychiatric hospital, part of profitable hospital corporation in Michigan. BC/BE. Excellent opportunity. For more information, call Joe Aguglia, president, JPA & Associates, (708) 355-4629, or send CV to 312 Tupelo, Suite 2A, Naperville (Chicago), IL 60540.

INTERNIST FOR NEBRASKA – A growing regional medical center in Nebraska seeks an internist to complement a group of highly qualified peers. Modern, progressive hospital will purchase equipment as needed. Competitive compensation package includes malpractice. Regional community for recreation, culture and shopping. Call Gwyneth Anderson at 1-800-221-4762 or write E. G. Todd Associates, 535 Fifth Ave., Suite 1100, New York, NY 10017.

MICHIGAN CITY, IND. – Seeking full-time and part-time emergency physicians for 99-bed, low-volume, hospital emergency department. Excellent compensation, paid malpractice and full benefit package to full-time staff. Opportunity for advancement. Contact Emergency Consultants, Inc., 2240 S. Airport Road, Room 20, Traverse City, MI 49684, 1-800-253-1795 or, in Michigan, 1-800-632-3496.

REGIONAL ORTHOPAEDIC PRACTICES – Lucrative orthopaedic practices available with several Midwestern regional medical centers. Unique opportunities with highly competitive start-up compensation packages that include income guarantees, paid malpractice and moving allowance along with additional desirable benefits. These are modern facilities with excellent peer association and up-to-date surgical equipment. Several locations available! Call Gwyneth Anderson at 1-800-221-4762 or write E.G. Todd Associates, 535 Fifth Ave., Suite 1100, New York, NY 10017.

WELLNESS PROGRAM needs physician. Work with police and fire departments! Treadmill fitness testing and pre-employment physicals performed. Some chart review with nurse practitioners. Please send confidential resume to Carl Otten, M.D., Personnel Development Group Inc., 222 E. Ohio St., Suite 800, Indianapolis, IN 46204.

FOR SALE: Refurbished medical instruments. Criticon Monitor, H.P. Monitors, Ohio anesthesia machines, Coulter counter, electrocardia, electrosurgery, cryosurgery, exam tables, O.R. and exam lights. Contact Bernard Medical Resources, 1555 Dixie Highway, Park Hills, KY 41011, or call (606) 581-5205.

POSITION AVAILABLE with thriving three-clinic urgency care corporation. Practice heavily emphasizing industrial, sports medicine and wellness programs. Regular work

week, no call. Assistant medical director available. Salary and benefits in six figures. Contact Dr. Dean Elzey, (219) 489-2772.

FOR RENT – Naples, Fla. Week minimum. Condominium near Ritz Carlton with one bedroom plus sofa sleeper. Bayside view, one block to ocean. Rooftop swimming pool, other amenities. Call for mailing. (317) 231-7253 days; (317) 842-6655 or (317) 823-0577 evenings.

OB-GYN / FAMILY PRACTICE / INTERNAL MEDICINE – Several attractive opportunities in INDIANA, WISCONSIN and MICHIGAN (many on lakes) for BC/BE physicians. Contact Bob Strzelczyk to discuss your practice requirements and these positions. STRELCHICK & ASSOCIATES INC., 12724 N. Maplecrest Lane, Mequon, WI 53092, 1-800-243-4353.

EMERGENCY MEDICINE – Terre Haute, Ind. Local group seeking full-time career-oriented emergency physician for position in small community hospital. Flexible scheduling, very competitive compensation package. Send CV or contact William R. Grannen, Priority Health Care, P.C., 7179 Lamplite Ct., Cincinnati, OH 45244, (513) 231-0922.

FAMILY PHYSICIAN, general practitioner or internist wanted to join three-man group in west central Indiana. Competitive salary and percentage arrangement. Partnership arrangement possible after one year. Contact Frank Swaim, M.D., Parke Clinic, 503 Anderson St., Rockville, IN 47872, (317) 569-3182.

INTERNIST BE/BC – North Shore Internal Medicine, PC is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to 2420 First Ave. South, Escanaba, MI 49829, (906) 786-1563.

EXAMINATION TABLE FOR SALE – Perfect condition. \$800 or best offer. (317) 872-3599.

INDIANAPOLIS, IND. – MetroHealth, a division of Methodist Hospital, is seeking board-certified or board-eligible physicians for the departments of family practice, internal medicine and obstetrics/gynecology. We are an established multispecialty physician group offering an attractive compensation package and professional liability. Please contact: Joyce Irwin, Human Resources, MetroHealth, P.O. Box 1367, Indianapolis, IN 46206, (317) 929-2721.

FAMILY PRACTICE – Southwest Iowa community of 7,800 (servicing 27,000) seeking a family physician to join well-established six-doctor practice. Modern facility adjacent to 100-bed hospital. Income guaranteed first year and full partnership after first year. For additional information, write Atlantic Medical Center, Sue Marsh, Office Manager, P.O. Box 429, Atlantic, IA 50022 or phone (712) 243-2850.

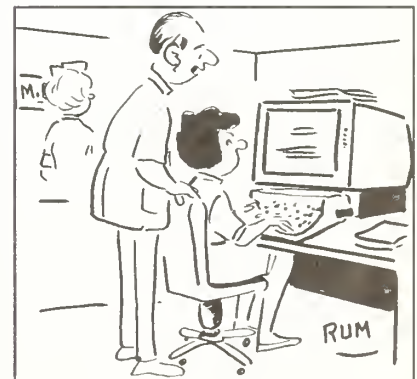
FOR SALE – Practice and building. Exceptional opportunity for one or two doctors. OB/GYN, family practice, internist. One block from hospital. Fully equipped. Newly decorated. Will sell on contract or lease. Call after 6 p.m., (812) 882-2063.

EMERGENCY PHYSICIANS WANTED – For Fayette Memorial Hospital in Connersville, Ind. Will consider all physicians with emergency medicine experience. 15,000 visits/year. Fee-for-service group does its own billing. Hourly compensation based on training, experience and qualifications. Excellent fringe benefit package includes, life, health, disability and malpractice insurance plus CME allowance, ACEP and ISMA dues, pension plan and potential bonus. Contact: Michael D. Bishop, M.D., FACEP, Emergency Care Physicians, 640 S. Walker St., Suite A, Bloomington, IN 47403, (812) 333-

2731.

FAMILY PRACTICE – Hospital-sponsored clinic opportunity. Dynamic, growth-oriented hospital in beautiful north central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435, (612) 835-5123.

CENTRAL INDIANA – Physician-owned emergency group accepting applications for full-time, career-oriented emergency physicians. Flexible work schedules and excellent benefit package. Part-time and directorship positions also available. Send CV or contact Sherry Bussel, Midwest Medical Management, Inc., 528 Turtle Creek, N. Drive, Suite F-4, Indianapolis, IN 46227, (317) 783-7474. □



"Some people pay their bills promptly, and some don't. I figured that out a long time before we installed this machine."

Are you reading this ad?

So are thousands of others. Reach more than 6,000 physicians with a display ad in *INDIANA MEDICINE*, the journal of the Indiana State Medical Association.

For additional information, contact *INDIANA MEDICINE*, 3935 N. Meridian St., Indianapolis, IN 46208 – (317) 925-7545.

– ISMA MEMBERS –

Mark Your Calendars!

What: 1990 Leadership Conference

When: Saturday, March 24

For more information,
call Denise Le Doux at
(317) 925-7545 or
1-800-969-7545.

Advertising index

Affiliated Physicians Services	117
American Cancer Society	137
Brown Pharmaceuticals	105
Central Pharmaceuticals	124
International Tours	111
Jackson & Coker	96
Jason Pharmaceuticals	103
Lilly, Eli & Co.	104
Lincoln National Life	125
Merck Sharp & Dohme	Covers
Palisades Pharmaceuticals	100
Physicians' Directory	138
Physicians Insurance Co. of Indiana	Cover
Postgraduate Medicine	121
Roche Laboratories	99, 100, 101
Spectrum Emergency Care	121
University Microfilms	133
U.S. Air Force	161

In accepting advertising for publication, *INDIANA MEDICINE* has exercised reasonable precaution to ensure that only reputable, factual advertisements are included. However, we do not have facilities to make comprehensive or complete investigation, and the claims made by advertisers in behalf of goods, services, medicinal preparations, apparatus or physical appliances are to be regarded as those of the advertisers only. Neither sanction nor endorsement of such is warranted, stated or implied by the association.

Are you moving?

If so, please send change of address to the Indiana State Medical Association, Membership Department, 3935 N. Meridian St., Indianapolis, IN 46208, at least six weeks before you move.

Name: _____

Address: _____

City: _____

State: _____

Zip: _____

County: _____

Office phone: _____

Home phone: _____

IMPORTANT - Attach mailing label from your last copy of *INDIANA MEDICINE* here:



VASOTEC[®]

(ENALAPRIL MALEATE) MSD

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths

Contraindications: VASOTEC[®] (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: **Angioedema.** Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension. Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed. Caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis. Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause hypotension at similar rates. For safety reasons, experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: **General Impaired Renal Function.** As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hypertension. Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

Surgery/Anesthesia. In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients

Angioedema. Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension. Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia. Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia. Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions

Hypotension: Patients on Diuretic Therapy. Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release. The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents. VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nifedipine, calcium-channel blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium. VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium. Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy—Category C. There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that

show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has been clearly defined, VASOTEC[®] (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcomes: Adverse exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal or neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypotension, or the underlying prematurity.

Nursing Mothers. Milk in lactating rats contains radioactivity following administration of ¹⁴C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use. Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION. The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE. The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (1.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.6%), abdominal pain (1.6%), asthma (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension); cardiac arrest, pulmonary embolism and infarction, rhythm disturbances, atrial fibrillation, palpitation.

Digestive: Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis, stomatitis.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Herpes zoster, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema. Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension. In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings

Serum Electrolytes. Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen. In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit. Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol%, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown). In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests. Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: **Hypertension.** In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium. (See PRECAUTIONS.)

Dosage Adjustment in Hypertensive Patients with Renal Impairment. The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure. VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia. In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine > 1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia. In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine > 1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

MSD
MERCK
SHARP
DOHME



For many
hypertensive patients

THERAPY THAT MAY BE AS SILENT AS HYPERTENSION ITSELF

VASOTEC is generally well tolerated and not characterized by certain undesirable effects associated with selected agents in other antihypertensive classes.

VASOTEC is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

FOR MANY
HYPERTENSIVE PATIENTS
ONCE-A-DAY



VASOTEC®
(ENALAPRIL MALEATE | MSD)

INDIANA MEDICINE

The Journal of the Indiana State Medical Association

March 1990

Vol. 83, No. 3



**WOMEN
IN
MEDICINE:
A Balancing Act**

JX

F. A. COUNTWAY LIB OF MED
N.E. JOURN OF MED
10 SHATTUCK STREET
BOSTON
MA 02115

Your new ISMA
Agency formed
specifically to
provide extremely
competitive
insurance and
financial services
products exclusively
to ISMA members,
their families and
employees

Endorsed by



MA *TENURE*

LOW COST TEN YEAR TERM INSURANCE

featuring...

- low, level premium
- level premium guaranteed for ten years
- current rates thereafter with no proof of insurability
- renewable to age 100
- convertible to permanent insurance to age 65
- waiver of premium for disability
- coverage for additional insureds

For a quote, additional information and to apply for cover age,
contact

Affiliated Physicians Services, Inc. toll free.
1-800-442-ISMA

INDIANA MEDICINE

The Journal of the Indiana State Medical Association

March 1990

Vol. 83, No. 3

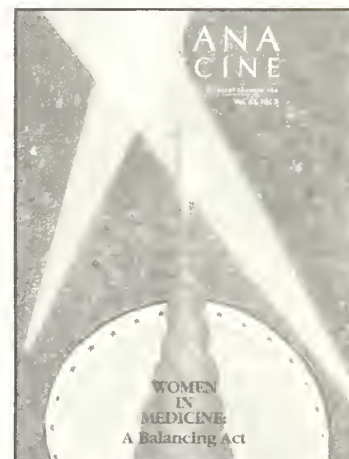
scientific contributions

CME

Conduct disorder: A review	172
Silicone breast implants – Is there cause for concern?	184
Smoking prevalence in Indiana: Implications for physicians	186
The neurological sequelae of mononucleosis	190
New trends in the surgical treatment of non-small cell lung cancer	192

features

Women in medicine: A balancing act	198
Today's women in medicine are balancing their needs for professional and personal development with the needs of their families.	
International medical training	204
Equalizing health care skills and facilities worldwide is the most effective way to control all diseases, particularly epidemics.	
Irish surgeon to serve as 10th Joseph C. Finneran Professor	210
Niall O'Higgins of Dublin, Ireland, will serve as the 10th annual Joseph C. Finneran Visiting Professor in Indianapolis.	



Cover story on page 198. Cover design by Diane Alfonso, Indianapolis.

departments

stethoscope	167
cme calendar	168
cme quiz	180
drug names	194
membership report	209
letters to the editor	212
auxiliary report	213
isma leadership	233
news briefs	234
obituaries	235
people	236
classifieds	238

THE FRANCIS A. COUNTWAY
LIBRARY OF MEDICINE
BOSTON MA

MAR 28 1990

Why does JACKSON & COKER *recruit more physicians each year than any other company?*

- ☐ Largest pool of available physicians in the nation
- ☐ Network of 7 regional offices nationwide
- ☐ Expertise that produces unparalleled results in recruiting quality physicians
- ☐ Proven system that produced over 1,000 placements in the last 3 years.



**JACKSON
& COKER**

(800) 888-0121

With Regional Offices In:

ATLANTA-DENVER-PHOENIX
DALLAS-ST. LOUIS
PHILADELPHIA

INDIANA MEDICINE

Devoted to the interests of the medical profession and public health in Indiana since 1908.

EDITOR

Frank B. Ramsey, M.D.

MANAGING EDITOR

Tina Sims

EDITORIAL ASSISTANT

Toni Settle

BUSINESS MANAGER

Richard R. King

CIRCULATION

Dotty Martens

EDITORIAL BOARD

Elton Heaton, M.D.

Richard N. Dexter, M.D.

(Terms expire Dec. 31, 1991)

Robert L. Rudesill, M.D.

Robert C. Ziss, M.D.

(Terms expire Dec. 31, 1992)

Thomas J. Conway, M.D.

I.E. Michael, M.D.

(Terms expire Dec. 31, 1990)

Mike Agostino

Mark Rodefeld

(Medical students)

CONSULTING EDITORS

Steven C. Beering, M.D.

Charles A. Bonsett, M.D.

Alvin J. Haley, M.D.

Rodney A. Mannion, M.D.

Alan T. Marty, M.D.

W.D. Snively Jr., M.D.

INDIANA MEDICINE (ISSN 0746-8288) is published monthly by the Indiana State Medical Association. Second-class postage paid at Indianapolis, Ind., and additional mailing offices.

Address correspondence relating to editorial material, advertising or subscriptions to: INDIANA MEDICINE, 3935 N. Meridian St., Indianapolis, IN 46208. Phone (317) 925-7545 or 1-800-969-7545 (in Indiana only).

Annual subscription rates for nonmembers: \$24 domestic, \$26 Canada, \$27 foreign. Medical library rates: \$22 domestic, \$23 Canada, \$24 foreign. Full-time Indiana medical students: \$12. Single copies not available. Subscriptions are renewable annually.

POSTMASTER: Send address changes to INDIANA MEDICINE, Indiana State Medical Association, c/o Membership Department, 3935 N. Meridian St., Indianapolis, IN 46208.

Views expressed do not necessarily reflect the opinions of the editors. No copyright is claimed, unless specifically indicated. Copyright rests solely with authors, who are responsible for statements in their articles. Scientific and editorial contributions are accepted for exclusive publication, subject to editorial requirements. Instructions for authors available upon request.

All issues since 1967 are available on microfilm from University Microfilms International, 300 N. Zeeb Road, Ann Arbor, MI 48106. Indexed in *Index Medicus* and *Hospital Literature Index*.

Advertising rates and data available upon request. INDIANA MEDICINE reserves the right to accept or reject advertising copy.

Members can still register for ISMA leadership conference

It's not too late for ISMA members to register for the annual leadership conference, set for Saturday, March 24, at the Holiday Inn North in Indianapolis. The program includes: a day-long seminar on radon, sponsored by the American Medical Association and the Environmental Protection Agency; a day-long session on: "Medicine, Media and Microphones," conducted by Adele Lash, ISMA director of communications, and limited to 15 participants; half-day sessions on chronic diseases in physicians' families, conducted by Dolores M. Burant, M.D., of Elkhart, and sponsored by the ISMA Commission on Physician Assistance and the ISMA Auxiliary; and half-day sessions on risk management, conducted by Barbara Killila of Physicians Insurance Company of Indiana. For information, call Denise Le Doux at the ISMA office, (317) 925-7545 or 1-800-969-7545.

ISMA cooperates in sponsoring "Mammograms for Mother's Day"

The ISMA is cooperating with the Indiana State Board of Health, the American Cancer Society of Indiana and the Indiana Hospital Association in sponsoring this year's program to encourage families to have their mothers obtain mammograms. "Mammograms for Mother's Day" is especially targeted at women older than 35 who have never had a baseline mammogram. Sponsors are asking mammogram facilities to charge \$50 or less for the test. Special Mother's Day cards and mammogram information are available from the American Cancer Society, 192 mammography facilities statewide and neighborhood health clinics. Physicians who wish to distribute the informational packets should call Carrie Van Dyke at the state board of health, (317) 633-0600. Each packet includes a Mother's Day card, instructions on how to arrange for mammograms through a family doctor or obstetrician/gynecologist and brochures on breast self-exam and breast cancer from the American Cancer Society. Susan Bayh, wife of Gov. Evan Bayh, is the honorary chairman of the program. The planning committee includes representatives from the Indiana Roentgen Society, the Indiana Academy of Family Physicians and the Primary Health Care Association.

Meetings to provide information on Medical Explorer program

ISMA members interested in volunteering their time and knowledge with members of Medical Explorer Scouts are invited to attend an ISMA-sponsored informational program during April. The ISMA is attempting to develop interest in the Exploring division of the Boy Scouts of America to implement Resolution 89-19, adopted by the 1989 House of Delegates. The Exploring program gives people ages 14 through 20 an opportunity to look into careers in medicine. Letters inviting county medical society presidents and hospital chiefs of staff to the informational luncheon program were mailed early this month, but anyone who is interested may attend. The luncheon programs will be held on the following dates: April 4, Fort Wayne, Bloomington and Muncie; April 11, South Bend, Terre Haute and Richmond; April 18, Merrillville, Columbus and Greenwood; and April 25, Logansport and Vincennes. To make reservations, call Mike Huntley at the ISMA, (317) 925-7545 or 1-800-969-7545. □

■ cme calendar

Indiana University

The Indiana University School of Medicine will sponsor the following courses:

- Mar. 16** - Diagnostic and Therapeutic Problems in Clinical Epileptology, University Place Executive Conference Center and Hotel, Indianapolis.
- Mar. 21** - Office Gynecology, Reid Memorial Hospital, Richmond, Ind.
- Mar. 23** - Update in Occupational Lung Disease, University Place Executive Conference Center and Hotel, Indianapolis.
- Mar. 24-25** - Annual Meeting, Indiana Society of Anesthesiologists and Anesthesia Update, University Place Executive Conference Center and Hotel, Indianapolis.
- Apr. 6** - Update in Critical Care Medicine, Vigo County Public Library, Terre Haute, Ind.
- Apr. 6-7** - Risk Factors and Atherosclerosis, Indiana University Medical Center, Indianapolis.
- Apr. 20-22** - Advanced Trauma Life Support/Instructor Course, Indiana University Medical Center, Indianapolis.
- Apr. 23-27** - Electrocardiographic Interpretation of Complex Arrhythmias: A Physiological Approach, Krannert Institute of Cardiology, Indiana

University Medical Center, Indianapolis.

- Apr. 23-25** - Echocardiography: Coronary Artery Disease, Stress Echocardiography, Doppler Color Flow, Transesophageal Echocardiography, Digital Storage and Display, University Place Executive Conference Center and Hotel, Indianapolis.
- Apr. 24-26** - Family Practice Update, Part I, University Place Executive Conference Center and Hotel, Indianapolis.
- Apr. 27** - 13th Annual Arthur B. Richter Conference, University Place Executive Conference Center and Hotel, Indianapolis.
- Apr. 28** - Nephrology Update, Westin Hotel, Indianapolis.

For information, call Melody Dian, (317) 274-8353.

Methodist Hospital

Methodist Hospital of Indiana will sponsor the following CME courses:

- Mar. 16** - Mild Head Injury, Methodist Hospital, Petticrew Auditorium, Indianapolis.
- Mar. 30-31** - Advanced Trauma Life Support, Methodist Hospital, Indianapolis.
- Apr. 28** - Cardiology Update: Current Concepts in Primary Care, Methodist Hospital, Petticrew Auditorium, Indianapolis.
- May 3-4** - 16th Annual William Niles Wishard Jr.,

M.D., Memorial Lecture, co-sponsored by the Indiana University School of Medicine.

- May 10-11** - Doppler Ultrasound and Interventional Radiology, Hilton-on-the-Circle, Indianapolis.
- May 17-18** - 25th Annual Gordon W. & Mae Batman Lecture Series, Methodist Hospital, Petticrew Auditorium, Indianapolis.

For more information, call Dixie Estridge, (317) 929-3733.

St. Mary's Medical Center

St. Mary's Medical Center in Evansville will sponsor the following courses:

- Apr. 5** - The Geriatric Seminar: The Slowing Necessities.
 - Apr. 26** - Pediatric Cholesterol.
- All courses will begin at 1 p.m. at St. Mary's Medical Center. For information, contact W. Thomas Spain, M.D., St. Mary's Medical Center, 3700 Washington Ave., Evansville, IN 47750, (812) 479-4468.

University of Michigan

The University of Michigan School of Medicine will sponsor the following courses:

- Apr. 6** - Modern Approaches to Thyroid Disease - 1990.
- Apr. 18-20** - Ultrasound in Obstetrics and Gynecology.
- May 17-18** - The Restenosis Summit II.

All conferences will be held at the Towsley Center at the University of Michigan School of Medicine in Ann Arbor, Mich. For information, call (313) 763-1400. ■

Spectrum Emergency Care, Inc.

We currently have part-time, full-time and Medical Director positions available in various low to moderate volume Emergency Departments throughout Indiana. We can offer you a flexible schedule from month to month with no over-head, office expenses and no on-call duty. Physicians receive a competitive hourly rate and the best occurrence malpractice insurance in the industry. Full-time physicians (those who provide 48 hours per week) may also receive relocation assistance, CME funds, and Indiana licensing fee reimbursement. In addition, Medical Directors are offered administrative orientation and training, health, life, dental and disability insurance and a 401k retirement plan. Call us today for more information and an application.

Joan E. Logel, Physician Recruiter
1-800-325-3982, ext. 3087



SPECTRUM EMERGENCY CARE, Inc.

P.O. Box 27352, St. Louis, MO 63141

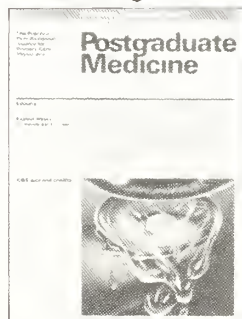
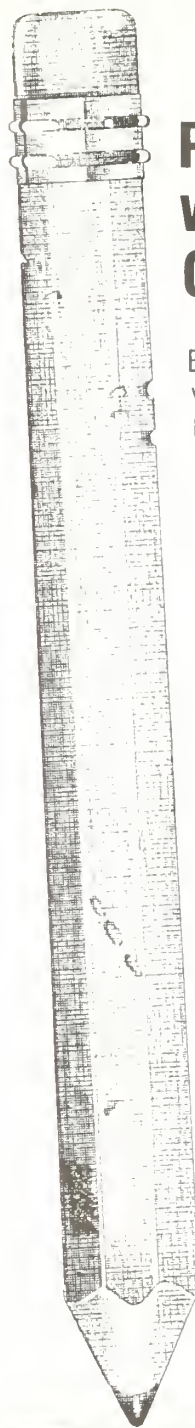
Pointing the way to more CME credit.

Earn more CME credit with Postgraduate Medicine's new and improved CME Program sponsored by the Interstate Postgraduate Medical Association.

More CME credits for less money (\$10.00).

Practical questions covering the most important points from each article—not just one symposium article.

Now, more than ever, you'll want to read every issue of Postgraduate Medicine from cover to cover!



4530 W 77th Street
Minneapolis, MN 55435
(612) 835-3222

YOCON® YOHIMBINE HCl

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubiaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it, however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.^{1,2} Also dizziness, headache, skin flushing reported when used orally.^{1,3}

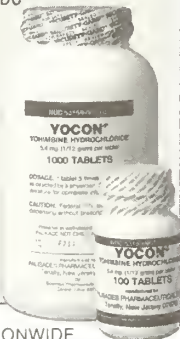
Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.^{1,3,4} 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.³

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85

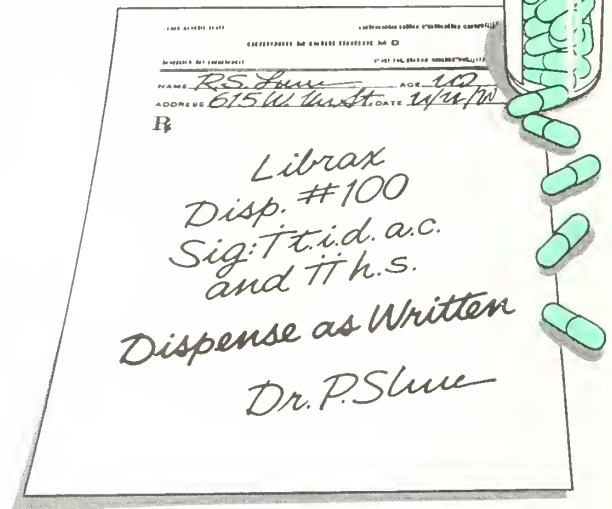
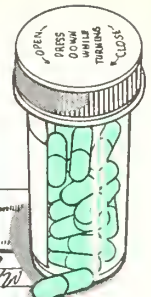


AVAILABLE AT PHARMACIES NATIONWIDE

**PALISADES
PHARMACEUTICALS, INC.**

219 County Road
Tenafly, New Jersey 07670
(201) 569-8502
1-800-237-9083

Specify Adjunctive LIBRAX®



Each capsule contains 5 mg chlorthalidone HCl and 2.5 mg clidinium bromide.

Please consult complete prescribing information, a summary of which follows:

- * **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlorthalidone HCl and/or clidinium Br.
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur. Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazepines (see Drug Abuse and Dependence).

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug.
Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlorthalidone HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlorthalidone HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuance of chlorthalidone; more severe seen after excessive doses over extended periods, milder after taking continuously at therapeutic levels for several months. After extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence.

P 1 0288

ROCHE Roche Products

Roche Products Inc
Manati, Puerto Rico 00701

IN

To insist on
the brand,
be sure to
sign on the
"Dispense
as Written"
line of your
prescription.

In IBS,* when it's brain versus bowel,

**IT'S TIME
FOR THE
PEACEMAKER.**

In irritable bowel syndrome,* intestinal discomfort will often erupt in tandem with anxiety—launching a cycle of brain/bowel conflict. Make peace with Librax. Because of possible CNS effects, caution patients about activities requiring complete mental alertness.

*Librax has been evaluated as possibly effective as adjunctive therapy in the treatment of peptic ulcer and IBS.

Specify Adjunctive

LIBRAX[®]

Each capsule contains 5 mg chlordiazepoxide
HCl and 2.5 mg clidinium bromide.

ROCHE

Conduct disorder: A review



Gina E. Laite, M.D.
Matthew R. Galvin, M.D.
Indianapolis

Conduct disorder is a highly visible and frequently encountered entity. The diagnosis and treatment of conduct disorder in children present a challenge to the family, the school, primary medicine, mental health and the corrective system.

Many disorders of childhood and adolescence first appear as behavioral problems. One-third to one-half of all referrals to child psychiatry clinics are attributed to "misbehavior;" thus, it is the most common reason for referral. Conduct disorder, as a diagnosis, says little about the child's psychological makeup, disabilities and motives for behavior, not to mention the heterogeneity of other factors, including family background, clinical characteristics, socioeconomic status, associated symptoms and underlying conditions.¹

The purpose of reviewing conduct disorder in this article is to address its complex underpinnings and to assist clinicians in referral, assessment and treatment.

The diagnosis of conduct disorder is derived from studies originally based on delinquent youths by Jenkins (1940s) and Quay (1960s). Delinquency is a legal term, not a psychiatric term, and designates minors guilty of trans-

gressions ranging from truancy to homicide without considering underlying neurological, neuropsychiatric or psychopathological factors.²

Delinquency encompasses certain specific "delinquent" behaviors, such as homicide or robbery, which would be criminal offenses if committed by adults, as well as status offenses (behaviors illegal because of age – truancy, alcohol use, staying out late, etc.), which would not be illegal if the offenders were adults. Although conduct disorder and delinquency (as well as the clinical literature devoted to each) overlap, they are not the same; youths with conduct disorder may or may not exhibit delinquent behaviors or have contact with the courts.³ The essential feature of conduct disorder is a persistent pattern of conduct in which the basic rights of others and major age-appropriate societal norms or rules are violated.⁴

Epidemiology

The incidence of conduct disorder is significantly higher in boys than girls; up to 10% of boys and up to 2% of girls may have conduct disorder before age 18. The prevalence is 4% to 10%. In 1981, between 18% and 20% of all arrests were of youths between 15 and 18 years of age, and almost 5% were children under age 15. These figures continue to rise in our increasingly violent society.

The disorder spans all socioeco-

INDIANA MEDICINE offers its readers a Continuing Medical Education series of articles prepared by the faculty of the Indiana University School of Medicine. The program is coordinated and supported by a grant from the school's Division of Continuing Medical Education.

The I.U. School of Medicine designates this CME activity for one credit hour in Category 1 of the Physician's Recognition Award of the American Medical Association.

To obtain Category 1 credit for this month's article, complete the quiz following this article.

nomic strata, although chronically delinquent children tend to come from lower socioeconomic backgrounds, belong to minority groups, be lower achievers academically and be in trouble earlier than nonchronically delinquent children. There is a difference in the age of onset related to the sex of the child, with the median age of onset being 8 to 12 years old in boys and 14 to 16 years old in girls. Theft and aggression are more common in boys; the symptoms in girls are more likely to include sexual misbehavior.^{2,3}

Conduct disorder is more common in children of parents with alcohol dependence and antisocial personality disorder than in the general population.⁵

Etiology and predictive factors

Conduct disorder represents a complex array of behaviors that are influenced by genetic and environmental factors. Dorothy Otnow Lewis has written extensively on conduct disorder and delinquency; she states that greater appreciation of the contribution of neurological, biochemical, psychopharmacological and genetic factors to human behavior has resulted in a renewed interest in the interaction of these variables in the creation of juvenile antisocial behavior.²

Lewis' most recent contribution to the study of violence in children and adolescents identifies risks that render those who have neuropsychiatric deficits vulnerable to abuse and neglect. The abuse and neglect may then have additional neuropsychiatric consequences, perpetuating the vicious cycle that culminates in later violence.⁶

Parental factors, specifically sociopathy and alcoholism, have been identified as likely causal

factors. Some studies suggest these antisocial and addictive behaviors may mask more serious parental psychiatric pathology, such as psychosis. Families of children with conduct disorder may be characterized by constant family conflict, which is considered a more significant stressor than a broken home. The discord and conflict that precede the parental separation are more significant than the break itself.^{2,7} The association between delinquency and broken homes is greatest if the break is secondary to divorce or separation rather than the death of a parent.⁸

Poor supervision of the child is also a common finding. Olweus determined four variables that determine adolescent delinquent behavior; three of the four are parental factors and include ma-

passes, the abused child may use projection and externalization to cope with low self-esteem. In addition, there may be identification with the aggressor or with the victim, eventuating in behavior that attempts unsuccessfully at reparative mastery as well as tension release.¹⁰

This model's detractors often cite the absence of psychophysiologic hyperarousal that is commonly associated with acute PTSD. In any event, abuse can result in central nervous system damage, which may predispose the individual to poor impulse control and poor performance in school and other life tasks.

The fourth variable involves temperamental factors, considered constitutional. The temperamental factors correlated with delinquency include the predisposition

Conduct disorder is more common in children of parents with alcohol dependence and antisocial personality disorder than in the general population.⁵

ternal permissiveness for aggression, maternal negativity toward the child and parental use of power assertive behaviors (violent outbursts, uncontrolled anger, physical punishment, threats).⁹ In fact, conduct disorder in some children has been conceptualized as a kind of post-traumatic stress disorder (PTSD) in which abuse is the extreme stressor.

Green argues that repetition of traumatic events, habituation for painful affects with the passage of time and gradual constriction of affect serve to dampen fears of annihilation, abandonment and feelings of helplessness. As time

to being irritable, risk-seeking and defiance of authority. The "difficult" child is perceived as less rewarding by parents; these children also are more vulnerable and less resilient to poor parenting techniques.¹⁷

Genetic factors have been reported by Mednick, who looked at the incidence of criminal behavior in adopted children. If neither biological nor adoptive parents had criminal records, the risk was 13% in adopted sons. The incidence was not affected by adoptive parent criminality (14%) but was nearly doubled by criminality in the biological parent (22%).¹¹

Monozygotic twin studies cited by O'Donnell show three times the concordance rate for criminality as dizygotic twins.¹ However, because twins are raised together, it is difficult to determine the relative contributions of genetic and environmental factors to behavior.⁸

The biology of aggression is the focus of ongoing research. Physiological characteristics of children with antisocial behavior have been investigated. Some children are slow to recover from physiological responses provoked by fear and, therefore, are thought to be slow to learn by reinforcement. Mednick studied how skin conductance varies between children of criminal and noncriminal fathers. Others have hypothesized hypoarousability, leading to the seeking of stimulation through disobedience. Studies of the relationship of hormonal levels, specifically testosterone, to aggressive behavior have been inconclusive. Men commit more violent crimes than women; women are more likely to commit antisocial acts before or during menses.^{2,8}

Certain hypothalamic, temporo- limbic and frontocortical lesions, as well as the modulation of the noradrenergic, serotonergic and GABAergic systems, have been linked to human aggression.^{12,13} The search for biological substrates possibly connected to antisocial behavior has revealed tantalizing but inconclusive evidence to support psychopathology related to biochemical variables.

Rogeness discusses Quay's hypothesis that externalizing disorders, in which the individual responds to an external locus of control (i.e., requiring limit-setting from external sources), are associated with decreased noradrenergic function. Rogeness' findings of

decreased plasma dopamine beta hydroxylase (DBH) activity in undersocialized children with conduct disorder based on DSM III categories in conjunction with significant diagnostic differences between the two groups (socialized versus undersocialized) supports a subtyping of conduct disorder based on biochemical differences.^{14,15}

Decreased levels of CSF serotonin have been linked to aggression in both animal and human studies. Recently, Coccaro and associates have evaluated central serotonergic function in relation to impulsive, aggressive and suicidal behavior in adults. Following a single dose challenge with fenfluramine, which is a serotonin-releasing/uptake inhibiting agent, prolactin responses were measured. Prolactin response is con-

sidered a promising index of overall central 5HT activity and may reflect the final effects of central 5HT function in the hypothalamic-pituitary axis. The results of this study suggest that self- and other-directed impulsive aggressive behaviors in patients with personality disorders are associated with reduced central 5HT function.¹⁶

Pliszka and Rogeness identified elevated whole blood serotonin in juvenile offenders.¹⁷ There is a current hypothesis that low serotonin turnover is related to an underlying dimension of impulsivity and constraint.

Diagnosis and clinical features

The DSM III description of conduct disorder was based on four subcategories and relied upon the presence or absence of aggressive behavior that was or was not as-

Table 1

Diagnostic criteria for conduct disorder

- A. A disturbance of conduct lasting at least six months, during which at least three of the following have been present:
 1. Has stolen without confrontation of a victim on more than one occasion, including forgery;
 2. Has run away from home overnight at least twice while living in parental or parental surrogate home, or once without returning;
 3. Often lies, other than to avoid physical or sexual abuse;
 4. Has deliberately engaged in fire-setting;
 5. Is often truant from school (for older person, absent from work);
 6. Has broken into someone else's house, building or car;
 7. Has deliberately destroyed others' property (other than fire setting);
 8. Has been physically cruel to animals;
 9. Has forced someone into sexual activity with him or her;
 10. Has used a weapon in more than one fight;
 11. Often initiates physical fights;
 12. Has stolen with confrontation of a victim (e.g., mugging, purse-snatching, extortion, armed robbery); or
 13. Has been physically cruel to people.
- B. If 18 years or older, does not meet criteria for antisocial personality disorder. Severity of conduct disorder is rated mild, moderate or severe.

sociated with the presence or absence of socialization (empathy, bonding, affection) combined with a repetitive and persistent pattern of deviant behavior. The examples of aggression cited in the DSM III (rape, mugging and robbing) are closely tied to the legal definitions of delinquency and are not frequently encountered in conduct disorder.¹⁸ Lewis writes that the absence of criteria for ascertaining the presence or absence of empathy, callousness, guilt or remorse made the category one of the most subjective and judgmental in the class of childhood disorder.²

Yet, many believe socialization is the pre-eminent concept to grasp in understanding conduct disorder. Prosocial development is itself the subject of theoretical speculation grounded in biology. Efforts to refine our assessment of socialization with valid, reliable instruments are clearly needed. Diagnostic criteria for conduct disorder are outlined in Table 1.

In the DSM III-R, radical revisions in the subtypes of the disorder were introduced without clear empirical basis. The DSM III-R describes three subtypes: group, isolated aggressive and undifferentiated. This change is controversial, and, as identified by Cantwell and Baker, the research literature does not support the change from four subtypes to three.

Differential diagnosis and codiagnoses

Developmental factors impinge upon diagnosis – children are not as adept as adults in identifying and reporting their subjective experiences of their mental status. Hence, structured interview techniques must supplement more projective methods as well as the

reports from adults in the child's life. The presence of antisocial behavior (e.g., lying, breaking things, disobedience) is common at different points in normal development; however, these behaviors tend to decline with age, and isolated antisocial acts do not warrant the diagnosis.³

Whenever possible, a multidisciplinary diagnostic evaluation should be obtained, including pediatric and neurologic examinations, as well as assessments from educators, social workers, psychologists and psychiatrists. It is essential to interview family members and caretakers. Previous records should be reviewed. The person interviewing the child should be aware that antisocial children may minimize serious

***Whenever possible,
a multidisciplinary
diagnostic evaluation
should be obtained,
including pediatric
and neurologic
examinations ...***

symptoms such as hallucinations or delusions. Because of this, questions may need to be asked at various times in different ways to gather information. The physical exam should note any scars and their etiology.²

Oppositional defiant disorder (ODD) includes some of the features of conduct disorder, such as disobedience and opposition to authority figures; however, the rights of others and age-appropriate rules are not violated.⁴ These children may appear arrogant,

argumentative, short-tempered, resentful and defiant, especially toward parents. They may later develop conduct disorder (the diagnosis of which pre-empts ODD). It is more common in males before puberty but equal among males and females after puberty.⁷

Antisocial behavior may occur in the course of an adjustment disorder. The distinguishing feature is the duration of symptoms. Adjustment disorder should not be diagnosed if symptoms persist past six months.

Attention deficit hyperactivity disorder (ADHD) often is associated with conduct disorder. In a study by Satterfield (1982), the dual diagnosis was associated with a much higher incidence of serious offenses and institutionalization.¹⁹

As many as one-third of the children with conduct disorder may be depressed.⁷ Depression may contribute to antisocial behavior in children and adolescents, with the depression being overshadowed by more blatant behaviors. Carlson and Cantwell concluded that a diagnosis of depression was overlooked in 60% of children who met the criteria for major depression. Most had been diagnosed inadequately as undersocialized, aggressive reactions or adjustment disorders.²¹ Although suicidal gesture or ideation is common and often considered manipulative, it should be taken seriously based on the number of suicides in jails.²

One-fifth of patients with bipolar disorder are adolescents. Bipolar disorder in children and adolescents can include irritability and antisocial behavior during a manic episode and may lead to an incorrect diagnosis of conduct disorder. The disruptive behavior

is not characteristic of their non-manic state.⁴

The more serious and violent their behavior, the more likely children are to have experienced psychotic symptomatology, especially extreme paranoia, with the aggressive acts being responses to misperceptions or hallucinations. A child who may have been psychotic in childhood may appear predominantly antisocial in adolescence.

These children are often in the borderline area of intellectual and academic functioning. They may be several grades behind their peers, based on testing. They are rarely seriously retarded; however, moderate retardation is one of the most frequently overlooked diagnoses in children with conduct disorder and may underlie more severe cases.^{2,7,8}

Associated features and an outline of differential and codiagnoses are listed in *Table 2*.

Neurological impairment is often evident, although frequently overlooked. It may appear as subtle organic dysfunction on neuropsychiatric testing. The more seriously antisocial/chronically aggressive the child, the greater the likelihood of identifiable neurological impairment. Their medical histories often are characterized by multiple accidents, injuries and illnesses. They may suffer from headaches, black-outs, dizzy spells and fainting, often symptomatic with alcohol consumption. There may be a history of seizures in childhood. The Harvard Mental Health Letter reports that 6% of the delinquent children in one study had temporal lobe epilepsy. The evidence of violence during seizures, however, is controversial. It is considered rare and must be preceded

Table 2	
Diagnostic considerations	
Differential diagnoses	
➤	Oppositional defiant disorder
➤	Isolated acts of antisocial behavior
➤	Adjustment disorder with disturbance of conduct
Frequent codiagnoses	
Axis I –	Attention deficit hyperactivity disorder
	Mood disorders
	Substance abuse disorders
	Schizophrenia, schizophreniform disorder, paranoid disorder
	Post-traumatic stress disorder
	Enuresis, encopresis
Axis II –	Specific developmental disorders (e.g., reading)
	Mental retardation
	Borderline intellectual functioning
	Personality disorders (particularly schizoid, schizotypal and borderline)
Frequent associated features	
➤	Substance abuse
➤	Precocious sexual behavior
➤	Lack of empathy
➤	Lack of guilt and remorse
➤	Low self-esteem
➤	Tough guy image
➤	Poor frustration tolerance
➤	Neurological impairment

by an aura, followed by drowsiness, headaches, etc. When it does occur, it tends to be random and undirected.^{2,8,12}

Soft or minor neurological signs are common in chronically aggressive children. These may include poor coordination, inability to skip, impaired short-term memory or choreiform movements. They are likely to have poor impulse control.²

Treatment

The treatment of conduct disorder requires a multidisciplinary approach. As conduct disorder

may encompass various underlying diagnoses, therapies must target treatable entities (ADHD, temporal lobe epilepsy, psychosis, etc.) and must involve the individual, the family and the community. No one treatment modality has proven to have definite advantages over another; therefore, a combination of approaches is warranted.

Individual therapy is of limited value because an individual with conduct disorder often has difficulty establishing a therapeutic alliance. The exception may be the older or more mature adoles-

cent capable of forming relationships.

Behavioral and cognitive interventions are used to alter specific behaviors but tend not to be generalized to other life situations. Some children may benefit from step-by-step games and stories to enhance social problem solving by learning to anticipate reactions to and consequences of their behaviors. Planned periods of interaction in occupational and recreational therapy as well as in special educational classrooms assist the child in overcoming low frustration tolerance and developing self-esteem.

The consensus on group therapy is varied, although it may be more effective than individual therapy by virtue of peer pressure. Ward council and therapeutic camping have been used to advantage in intermediate-length care settings. Group situations that provide the child contact with a strong adult role model and less disordered peers may extend the therapeutic environment beyond the hospital. Examples of this type of situation include Big Brother/Big Sister organizations, Boy or Girl Scouts, YMCA, Boys Clubs and church groups.

In cases where family members are available and amenable to treatment, family therapy may be attempted to improve interactions and communication; it is more effective in the milder forms of conduct disorder. Parental skills training should focus on consistency with effective discipline, helping parents recognize and reward good behavior to begin to break the "I get more attention when I'm bad" cycle. Children improve when parents provide clear guidelines of what is expected of them and what will

happen if they comply (rewards for prosocial behavior) and if they disobey (time-out routines).

Short-term interventions often are inadequate. Longer-term placement in residential facilities that provide structure and consistent limit-setting is sometimes indicated. Unfortunately, such placements are not readily available. The medically indigent family without a funding source from the Department of Welfare or the Department of Education is not likely to have access to residential placement. The corrective system is burdened by the lack of a system of services for mentally ill youth.²¹

The pharmacotherapy of conduct disorder encompasses a broad spectrum of medications, with aggression being the most frequently targeted symptom. "No medication alone will change repetitive and persistent patterns of aggressive behavior, even if underlying psychopathology (depression, short attention span, psychosis) is appropriately treated."¹

Thioridazine, haloperidol and perphenazine frequently are used and have been effective in helping to control aggressive behavior. Their use is complicated by side effects, such as extrapyramidal and anticholinergic symptoms as well as the long-term risk of tardive dyskinesia. In general, their use should be deferred until other approaches have proven ineffective.²² If the aggression is secondary to underlying psychosis, an antipsychotic would be the first line of treatment. Frequently, the efficacy of neuroleptics is attributed to sedative properties of this group of agents. However, some theories of conduct disorder implicate dopaminergic systems,

and the dopamine-blocking effect of the neuroleptics is cited as supportive evidence.

Lithium has been noted to attenuate aggressive behavior in studies of animal and human populations. It has been found effective not only in the treatment of aggression related to underlying bipolar illness in children with conduct disorder but also in aggressive children without concomitant affective disorder.¹ Characteristics of lithium-responsive children include explosive anger, marked aggressivity and "hair trigger" sensitivity to stimuli. These traits may be responsive to lithium regardless of the presence or absence of affective illness. Lithium is safer than neuroleptics, with fewer short- and long-term adverse effects.

Placebo-controlled, double-blind pharmacologic studies of conduct disorder are very few. Magda Campbell's work in this area identifies haloperidol and lithium superior to placebo in treating target symptoms. Haloperidol was associated with more side effects. Lithium is considered a viable alternative to haloperidol and other neuroleptics but has not achieved the status of drug of choice.²³ One way of conceptualizing the use of these medications is that they lengthen the hyphen between stimulus and response (S-R becomes S—R), allowing the child or adolescent to make use of cognitive behaviors that must be practiced in therapy: thinking through alternatives, consequences and means to an end.

In open and retrospective studies, propranolol has effectively controlled rage outbursts and violent behaviors in adults with and without brain damage.²⁴ It has been used in aggressive chil-

dren with subtle and chronic brain damage.¹

Anticonvulsants occasionally are considered in the treatment of aggression. As already mentioned, the relation between seizure activity and aggressive behavior is controversial. A very small number of cases of violence are related to ictal phenomena and are usually not mistaken as volitional behavior. Phenytoin and carbamazepine are the two most frequently reported anticonvulsants used in children for behavioral control. O'Donnell cites three placebo-controlled studies (Lefkowitz 1969, Looker and Connors 1970, Connors 1971) that demonstrated no improvement with phenytoin versus placebo. He says phenytoin most likely has no place in the treatment of conduct disorders.¹

viewed by Evans et al, who concluded that a trial of carbamazepine may be indicated in serious behavioral disturbance if first line treatments have failed. It may be effective in reducing destructiveness, disobedience and aggressivity.²⁵

Stimulants are indicated in conduct disordered children who also have the symptoms of attention deficit hyperactivity disorder.

Tricyclic antidepressants are indicated in the depressed child with behavioral problems. Currently, some clinicians conceptualize the treatment of conduct disorder in the same way they would affective disorder. The most commonly reported and used is imipramine,¹ though other tricyclics, as well as other categories of antidepressants, may be considered. The pediatric population is more

pharmacotherapy in the future.

Overall, the treatment record for conduct disorder is poor, with no clearly effective interventions. Lewis cites Martinson's review of hundreds of treatment programs for delinquents and offenders, and none were found to be particularly effective. Her assessment is that the failure of special types of programs probably results from failure to address individual differences and etiological factors. The best treatment programs will fail if they do not take into account concomitant psychiatric diagnoses and other psychophysiological vulnerabilities. Even if treatment is effective, the sad reality is that improvement made in structured residential treatment facilities often deteriorates when the individual returns to an inadequate home environment.

***The best treatment programs will fail
if they do not take into account
concomitant psychiatric diagnoses
and other psychophysiological
vulnerabilities.***

Carbamazepine blocks norepinephrine reuptake and is structurally similar to the tricyclic antidepressants as well as to stimulants and major tranquilizers. It has the greatest specificity for limbic structures of all the anticonvulsants and inhibits the limbic after discharge involved in kindling phenomena. It decreases aggressive behavior and overactivity in mentally handicapped adults with and without electroencephalogram abnormalities.¹ The use of carbamazepine in pediatric behavior disorders has been re-

susceptible to the cardiotoxic effects of tricyclic antidepressants, so careful monitoring of electrocardiograms is indicated. Amitriptyline is receiving attention among clinical researchers in refractory depression frequently accompanied by conduct disorder.

It is essential to closely monitor target symptoms and establish trial time periods to assess the efficacy of the medication.

Current research in genetic vulnerability to conduct disorder, as well as the biological sequelae of abuse and neglect, may direct

Prognosis

Children with conduct disorder are unlikely to "grow out of" a consistent and repetitive pattern of antisocial behavior. Antisocial behavior tends to be relatively stable over time, not only within individuals but also in families. It is a cross-generational disorder. Long-term follow-up studies cited by Kelso revealed only 17% to 28% became "well." One-fourth to one-half persist with antisocial behavior into adulthood with the likely development of other psychiatric disorders (20% eventually are diagnosed as psychotic).²⁶

Significant predictors of the persistence of conduct disorder include the number of symptoms of conduct disorder upon initial evaluation, large family size and deviance in relatives, especially in fathers. Those with earlier onset and more solitary activity are most likely to develop into adults

with antisocial personality disorder.

Whatever the underlying pathology, youths with conduct disorder are some of the most seriously disturbed and are at as great a risk for psychiatric disorders as adults. □

Dr. Laite is a child and adolescent psychiatry resident at the Indiana University School of Medicine Department of Psychiatry. Dr. Galvin is acting clinical director at Larue Carter Hospital Youth Service and assistant professor at the Indiana University School of Medicine Department of Psychiatry.

Correspondence and reprints: Matthew R. Galvin, M.D., Riley Child Psychiatry Clinic, Riley Hospital, 702 Barnhill Drive, Indianapolis, IN 46223.

For a list of references, write INDIANA MEDICINE, 3935 N. Meridian St., Indianapolis, IN 46208.

PRACTICE WITH A DIFFERENCE. NAVY MEDICINE

Tending to the varied medical needs of the more than 800,000 men and women of the Navy-Marine Corps team and their families around the world is a big job. A vital job.

It could be just what you're looking for.

As a Navy physician you can enrich and diversify your medical experience. You may practice aboard ship, at large Navy teaching hospitals, or at small naval clinics. You can explore medical frontiers like aerospace and undersea medicine. You'll get hands-on experience in important and rapidly expanding medical fields.

And you can enroll in advanced educational programs to keep pace with the diversified medical technology of tomorrow.

To find out more about the Navy Medical Corps, call **1-800-527-8836**



NAVY PHYSICIAN

**You are Tomorrow.
You are the Navy.**

cme quiz

To obtain one hour of Category I CME credit, answer the following questions by circling the correct answer on the answer sheet below. Complete the application form and mail it to: Indiana University School of Medicine, CME Division, BR 156, 1226 W. Michigan St., Indianapolis, IN 46223.

Conduct disorder: A review

- Which of the following statements about gender related differences in conduct disorder is correct?
 - 10% of boys and 2% of girls may develop conduct disorder before age 18, with the average age of onset earlier in females than in males
 - conduct disorder is more common in males than females, with an incidence of 20% in males versus 4% in females
 - the average age of onset of conduct disorder in females is 14 to 16 years and 8 to 12 years in males
 - theft and aggression are more common in females than in males
- Parental factors associated with the development of conduct disorder in children include the following except:
 - maternal permissiveness for aggression
 - power assertive behaviors such as physical punishment, threats and violent outbursts
 - sociopathy and alcoholism
 - adequate supervision of children
- Human and animal aggression have been linked to:
 - thalamic, parietolimbic and fronto-cortical lesions
 - increased CSF serotonin
 - increased plasma dopamine beta hydroxylase
 - all of the above
 - none of the above
- Codiagnoses in children with conduct disorder would not include:
 - attention deficit disorder
 - oppositional defiant disorder
 - mental retardation
 - depression
- Neurological impairment in children with conduct disorder
 - in the form of seizures accounts for the aggression seen in these children
 - is infrequently encountered
 - may present as "soft" signs, such as poor coordination, impaired short-term memory and choreiform movements
 - is less likely in the more seriously antisocial child
- The number of children meeting the diagnostic criteria for conduct disorder and depression is:
 - 1/8
 - 1/6
 - 1/4
 - 1/3
 - 1/2
- All of the following may be codiagnosed with conduct disorder except:
 - attention deficit hyperactive disorder
 - post-traumatic stress disorder
 - schizotypal personality disorder
 - adjustment disorder with disturbance of conduct
 - encopresis
- The following agents have been studied in a placebo-controlled, double-blind fashion specifically for aggressive conduct disorder in children:
 - haloperidol only
 - lithium only
 - both haloperidol and lithium
 - neither haloperidol nor lithium
- Currently, there are no definite indications for pharmacotherapy for conduct disorder without unmanageable aggression or codiagnoses such as depression or attention deficit disorder.
 - true
 - false
- Indications for the following agents in conduct disorder should be considered conjectural:
 - psychostimulants
 - antidepressants
 - anticonvulsants
 - B-blockers
 - all of the above

Answer sheet for CME quiz

I wish to apply for one hour of Category I AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on this answer sheet. I understand my answer sheet will be graded confidentially, at no cost to me, and notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score, but the answers will be published in the next issue of INDIANA MEDICINE.

Name: (please print or type) _____

Address: _____

Identification number: (found above your name on mailing label) Signature: _____

To be eligible for this month's quiz, send your completed, signed application before April 10, 1990, to the address appearing at the top of this page.

Answers (circle one)

- a b c d
- a b c d
- a b c d e
- a b c d
- a b c d
- a b c d e
- a b c d e
- a b c d
- a b
- a b c d e

SEVEN WAYS TO SHARPEN YOUR MEDICAL SKILLS.

The Army Reserve offers a number of highly specialized medical courses you can't always get in civilian hospitals—with the kind of flexibility your busy schedule demands. Here is just a sampling of the unique training programs available to you in the Army Reserve:

COMBAT CASUALTY CARE Prepares you for treating trauma patients in your civilian career. Learn how to live, survive, and function in challenging environments.

ADVANCED TRAUMA/LIFE SUPPORT Teaches you how to treat trauma patients during the critical first hour of injury. Sponsored by the American College of Surgeons.

ADVANCED BURN LIFE SUPPORT Teaches you how to treat and manage the unique characteristics of the burn patient. Sponsored by the American Burn Association.

ADVANCED CARDIAC LIFE SUPPORT Centers upon the treatment and life-saving intervention associated with the acute cardiac patient. Sponsored by the American Heart Association.

TROPICAL MEDICINE Provides you with advanced in-depth training in parasitology, infectious diseases occurring in tropical and other areas of the world, and other related topics.

FLIGHT SURGEON Gives you a working knowledge of aviation medicine in a course that offers opportunities for frequent operational flights.

AVIATION MEDICINE Offers you a follow-up to the Flight Surgeon course and includes air ambulance operations, airfield operations, and aeromedical research.

Join a local medical unit and serve as few as 16 hours a month and 14 days of active duty during the year. The time you serve can be scheduled around your busy private practice.

You might also have the opportunity to participate in our Individual Mobilization Augmentee Program and serve just two weeks each year.

If you would like more information about these or other medical opportunities, or would like to be contacted by an Army Reserve physician, call 1-800-USA-ARMY.

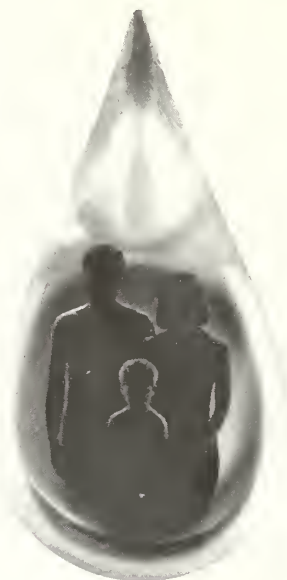
ARMY RESERVE MEDICINE. BE ALL YOU CAN BE.®



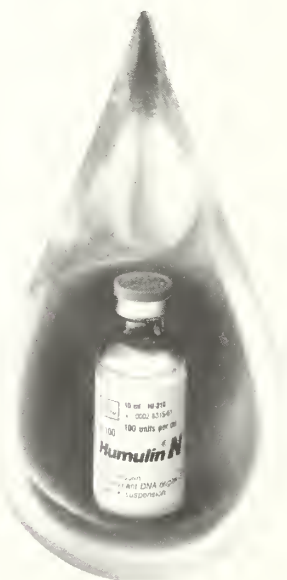
For treatment of diabetes:


Introducing
Humulin® 70/30
70% human insulin isophane suspension
30% human insulin injection
(recombinant DNA origin)

REPLACE Human Insulin

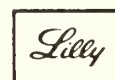


With Human Insulin

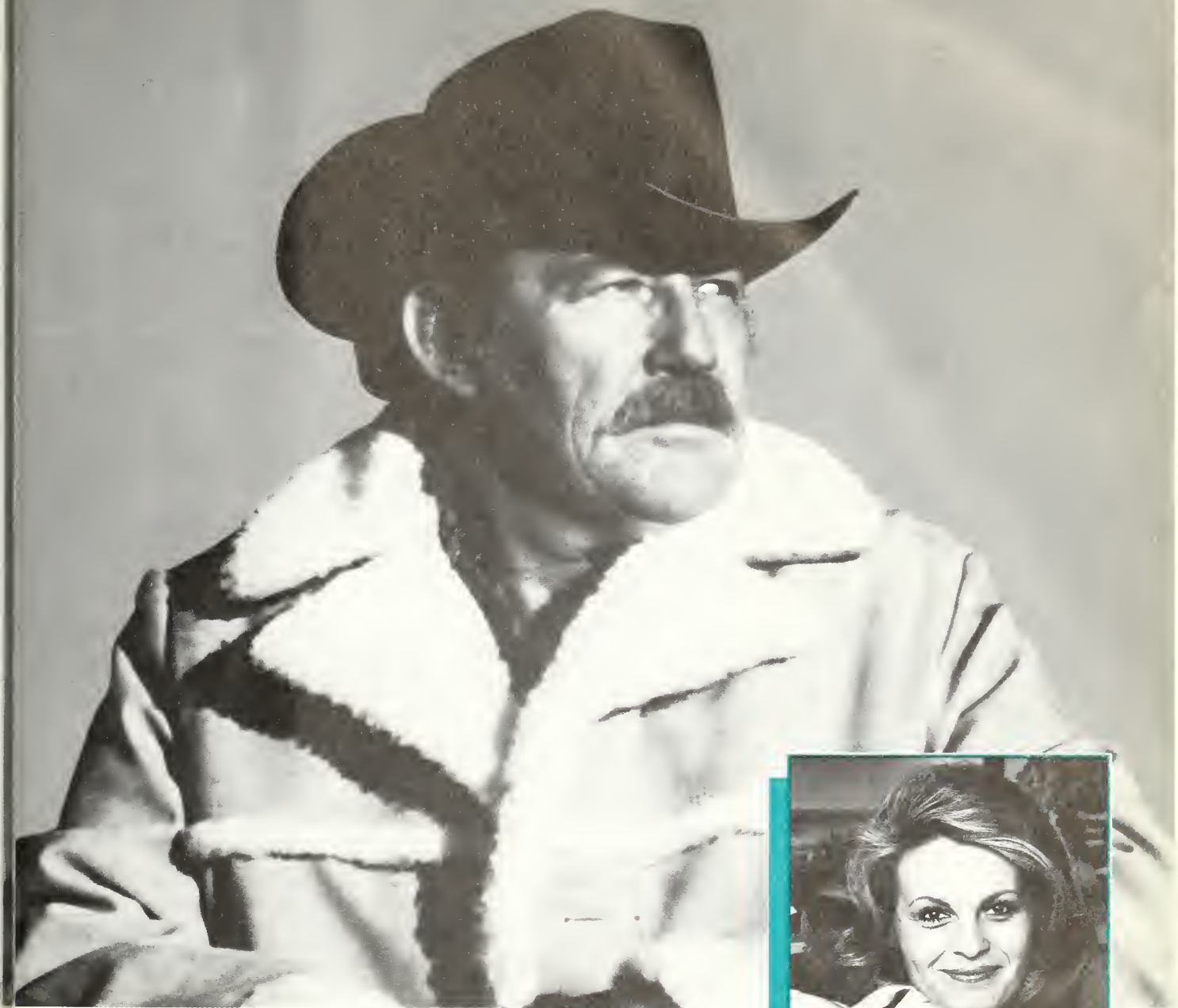


Humulin® 
human insulin
(recombinant DNA origin)

*Any change of insulin should
be made cautiously and only
under medical supervision.*



Leadership
In Diabetes Care



Dosing Flexibility

Android[®] / ^{Buccal}5_{mg} / ^{Oral}10_{mg} / ^{Oral}25_{mg}

Methyltestosterone U.S.P. Tablets

Android[®] / **F**

Fluoxymesterone U.S.P. Tablets, 10 mg.



For Full Prescribing
Information,
Please See PDR.

Silicone breast implants – Is there cause for concern?

Bruce W. Van Natta, M.D.
J. Bradley Thurston, M.D.
Thomas S. Moore, M.D.
Indianapolis

A great deal of media attention has been given to the question of the safety of silicone-gel implants. This article will review the available scientific information on this issue, as well as provide the opinions of the plastic surgery community regarding any potential health risks to humans.

Since 1962, silicone has been used as a medical implant material in a variety of applications including pacemakers, prosthetic joints and breast implants. As part of an ongoing evaluation of the safety and efficacy of silicone, Dow Corning Corp., the originator of silicone medical devices, completed a long-term animal study of silicone-gel. This study involved the implantation of silicone-gel into rodents; 25% of these animals developed sarcomas, predominantly fibrosarcomas, at the site of gel implantation. This finding is consistent with an extensively studied phenomenon in mice and rats in which all inert alloplastic materials, including cellophane, nylon, glass, metals and silicone, induce connective tissue tumors (i.e., sarcomas) at the implantation site.

First described in 1984, this effect was studied further by the Oppenheimers and by Gerhard

Abstract

Recent controversy has arisen regarding the potential carcinogenesis of medical silicone-gel as used in breast implants. A review of the pertinent literature shows that although rodents do demonstrate the development of sarcomas to any inert material, including silicone-gel, the phenomenon is species specific. No clinical evidence of carcinogenesis in humans has been noted in more than 25 years of use. We conclude that silicone-gel breast implants are safe.

Brand, M.D.^{1,2} It has been known as solid-state tumorigenesis (SST) and the "Oppenheimer effect." According to Dr. Brand, there is a species specific cell-type in these rodents with an inherent genetic instability, which results in the formation of the sarcomas. No similar cell-type could be identified in human implant-associated cells. Based on these data, Brand concluded that the occurrence, in humans, of tumors related to alloplastic implants would be extremely rare.³

Dow Corning presented the data from its recent study to a panel of independent experts in toxicology and cancer research. The Dow scientists and the expert panel agreed that the sarcomas were an expected response in accordance with the solid-state tumorigenesis effect. Furthermore, they concluded that this response in rodents should not be extrapolated to humans.

The data also were presented to the U.S. Food and Drug Administration Nov. 2, 1988. Representa-

tives of the American Society of Plastic and Reconstructive Surgeons (ASPRS) and the American Society for Aesthetic Plastic Surgery testified at the FDA hearing Nov. 22, 1988. The FDA's panel of experts concluded that there was no scientific evidence to justify removing silicone-gel breast implants from the market at that time.⁴

Silicone breast implants are safe in humans. In fact, during the last 25 years, there has never been a single documented case of sarcoma developing in response to breast implants in human patients. In 1986, Deapen et al published an 11-year, retrospective ongoing analysis of 3,100 women who received silicone-gel prostheses. The purpose of the study was to evaluate the potential for breast cancer in these women. No cases of local soft tissue sarcomas were identified. Furthermore, the 3,100 women analyzed actually demonstrated a lower incidence of breast cancer than the general population.⁵

Another consideration is that the rodent studies by Dow Corning involved the implantation of silicone-gel into the animals, whereas the breast implants used in humans consist of an outer silicone shell containing silicone-gel. Although minute quantities of silicone-gel are known to "bleed" over time, it is estimated that use of silicone-lubricated syringes by insulin-dependent diabetics results in a similar amount of silicone in their tissues over a lifetime, as would be found in a woman with breast implants. No studies to date have demonstrated a higher incidence of sarcomas in diabetics or in patients with pacemakers or artificial joints made with silicone.

Why then, in light of sound laboratory and clinical evidence, has there been such controversy in the lay press? The alarm is largely due to a combination of misinterpretation of the Dow Corning study by a consumer activist group, the Public Citizen Health Research Group, and media sensationalism. The alarmist claims of the consumer advocacy

group that silicone-gel implants may cause breast cancer have become a cause of concern for many of the more than 2,000,000 American women who have received breast implants since 1962, as well as those currently considering breast reconstruction or augmentation procedures using such implants.

George Reading, M.D., president of the ASPRS, in a letter to ASPRS members, reports that the FDA has requested support in distributing a detailed Informed Consent brochure for all patients considering breast implant procedures. The brochure would have to be signed by prospective patients indicating that they have both read and understood the contents.

Is there cause for concern? The information from responsible analysis of the laboratory data, as well as the long-standing record of clinical safety, would indicate there is not. Plastic surgeons currently are reassuring their patients in this regard. At the same time, Dow Corning and the American Society of Plastic and Recon-

structive Surgeons are committed to ongoing research, testing and analysis of silicone for use in human patients. ▢

Drs. Van Natta, Thurston and Moore are with Indianapolis Plastic Surgeons.

Correspondence and reprints: Bruce W. Van Natta, M.D., Indianapolis Plastic Surgeons, 8330 Naab Road, Suite 140, Indianapolis, IN 46260.

References

1. Oppenheimer BS, Oppenheimer ET, Stout AP: Sarcomas induced in rats by implanting cellophane. *Proc Soc Exp Biol Med*, 67:33, 1948.
2. Brand KG, Johnson KH, Buoen LC: Foreign-body tumorigenesis. *CRC Crit Rev Toxicol*, 4:353-394, 1976.
3. Brand KG: Foam-covered mammary implants. *Clin Plastic Surg*, 15:533-539, 1988.
4. Reading G, Anastasi GW: Letter to ASPRS membership. Nov. 30, 1988.
5. Deapen DM, Pike MC, Casagrande JT, Brodey GS: The relationship between breast cancer and augmentation mammoplasty: An epidemiologic study. *Plast Reconstr Surg*, 77:361-367, 1986.

Smoking prevalence in Indiana: Implications for physicians

Gordon B. Lindsay, Ph.D.
Sunita Joseph, MPH

The important role lifestyles play in the etiology of chronic diseases is confirmed by epidemiologic research.¹ Public health officials are recognizing the need to systematically collect prevalence data on health behaviors related to the nation's leading cause of death and disability. Consequently, risk factor prevalence is being monitored through the Behavioral Risk Factor Surveillance System (BRFSS), developed by the Centers for Disease Control.

This surveillance system consists of a validated survey protocol administered by state health departments. Data are generated via monthly telephone surveys. Indiana is one of 34 states currently participating in this ongoing effort.

This article will highlight smoking-related findings of the 1988 Indiana Behavioral Risk Factor Survey. High-risk subpopulations are identified, and cessation trends are noted. Estimates of smoking-related deaths in Indiana also will be presented. Then, implications of these data for Indiana physicians are explored.

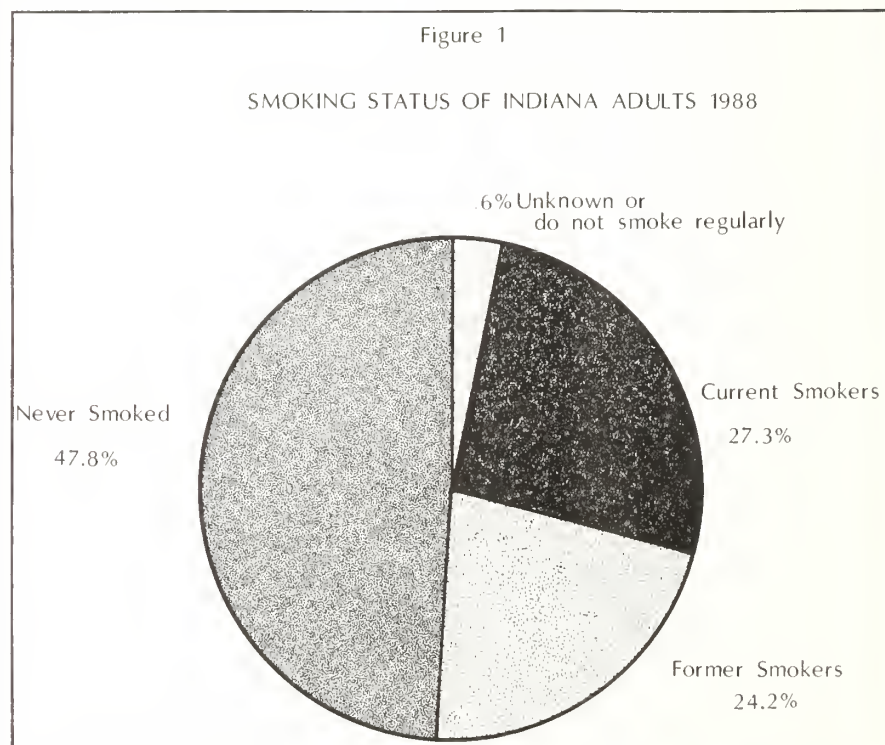
Survey description

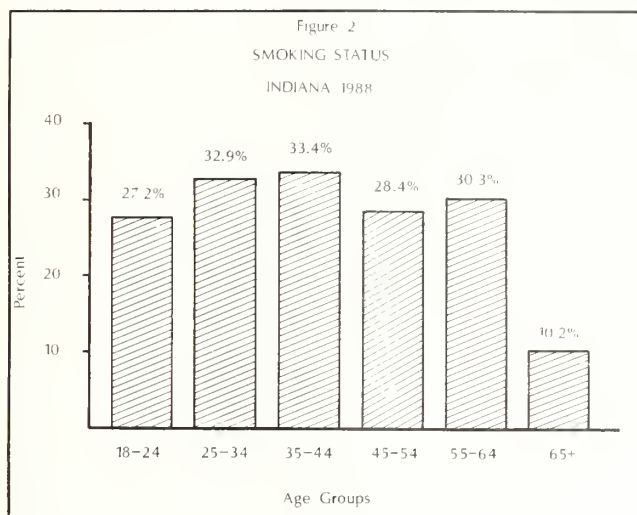
During 1988, 2,160 surveys were

completed in Indiana using the Waksberg Random Digit Dialing Three-Stage Cluster design. Data were weighted to provide prevalence estimates representative of Indiana's total adult population (18+ years of age). Weighting was based on the sampling protocol, survey design and projected 1987 age and sex distribution for Indiana.

The results revealed 52.1% of the adult population had been regular smokers at some time.

Men were more likely to have been regular smokers than were women. A total of 48.9% of men and 59.3% of women who had been regular smokers continue to use cigarettes. These data indicate that a higher percentage of men have successfully quit smoking. Nevertheless, the prevalence of smoking remains higher among Hoosier men than women (29.5% vs. 25.4%). This gender difference seems to be narrowing among young adults.





Currently, 27.3% of Indiana's total adult population smokes cigarettes (Figure 1). This compares to an average of 24.3% for all states participating in the behavioral risk surveillance system. Indiana's reported smoking prevalence was the ninth highest of the 34 states collecting data in 1988 (Table 1). The state's relatively high ranking has been observed constantly for the annual surveys from 1984 through 1987.

Smoking prevalence in Indiana was related to age (Figure 2). The highest prevalence of smoking occurred in those 35 to 44 years of age (33.4%). The lowest prevalence was found in the 65+ age group (10.2%). The low prevalence among the elderly probably was due to small initial use rates among older women and the higher incidence of smoking-related mortality already experienced by smokers who would have been a part of this age group.

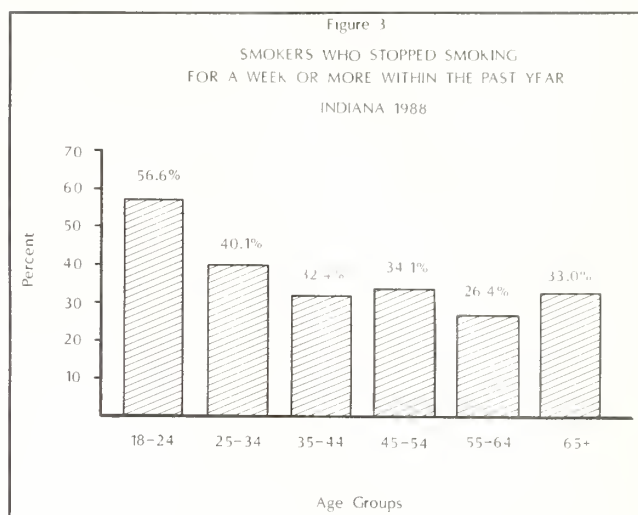
Cessation attempts also were highly age-related. Approximately 27% of the 18- to 24-year-olds were smokers. However, nearly 57% of these reported quit-

ting for at least one week during the past year (Figure 3). This is substantially higher than the percentage of cessation attempts reported by other age groups.

Attributable mortality

Three data sets are needed to estimate the impact smoking has on Indiana mortality. These include: 1) the number of deaths by select causes for which smoking is a known risk factor; 2) the relative risk ratios associated with smoking and those causes of death; and 3) current estimated smoking prevalence. These data were entered into the Thar Population Attributable Risk statistical package provided by the Centers for Disease Control. The projected number of Hoosier deaths attributed to smoking is substantial (Table 2).

In 1986, there were 48,499 deaths among adults in Indiana. Approximately 6,652 or 13.7% of all deaths could be attributed to smoking. This represents more than 18 Hoosier deaths each day. The magnitude of smoking-related mortality emphasizes the need for greater smoking education efforts



by Indiana's physicians and other health care professionals.

Implications for Indiana physicians

Physicians should be encouraged by the continued downward trend of the adult smoking prevalence. Nevertheless, an Indiana prevalence rate of 27.3% means an estimated 1,110,000 adult Hoosiers remain exposed to this major risk factor. Indiana physicians must continue to emphasize the high risk associated with this behavior and provide help for those desiring to quit. C. Everett Koop, M.D., former U.S. Surgeon General, has stated that the single most effective way to reduce smoking is for physicians to give clear and forceful counsel to individual patients.² Evidence suggests the message is not getting through to patients.

A recent Lou Harris survey asked health authorities and the lay public to rank the relative importance of 24 risk factors.³ The health authorities ranked smoking as the single most important health risk. The public ranked smoking a distant 10th.

Clearly, large segments of society fail to perceive the level of risk associated with cigarette use. A variety of strategies has been suggested to more effectively counsel patients on the dangers of smoking.^{4,7} These include messages that emphasize the patient's personal susceptibility to smoking-related disease. More physicians' expressions of confidence in their patients' abilities to quit also are helpful.

Indiana data suggest many smoking patients do not need patient education that emphasizes the "whys" of smoking cessation. More than a third (38%) of Indiana smokers reported quitting for a whole week or more during the past year. This indicates the need for more "how to" counseling from Hoosier physicians. The high percentage of smokers in the 18- to 24-year-old group who quit for a week or more is particularly impressive (57%). Special attention should be given to these young smokers. They have the most to gain by quitting and appear to have the highest initial motivation.

Both young and old smokers can benefit from numerous community smoking cessation resources. A number of excellent cessation classes are offered by various Indiana voluntary health agencies. Patients should be referred to these existing programs that spend substantial amounts of time dealing with the challenges and strategies of quitting. These valuable resources are underused.

Indiana physicians also can influence smoking prevalence through indirect means. Cigarette use is being perceived increasingly as a social liability. Social disapproval, rather than personal health concern, may prove to be the more powerful motivator to

State	Percent	State	Percent
Kentucky	34.19	Georgia	25.00
Tennessee	29.83	Maryland	24.76
Missouri	29.16	Minnesota	24.34
West Virginia	28.82	Rhode Island	24.27
New Hampshire	27.98	D.C.	24.19
Florida	27.94	New Mexico	24.00
Ohio	27.79	Nebraska	23.97
Maine	27.66	New York	23.89
Indiana	27.31	North Dakota	23.72
Alabama	27.18	Texas	23.70
Illinois	26.84	Washington	23.70
Massachusetts	26.38	Hawaii	23.65
Arizona	26.16	California	22.21
North Carolina	26.14	Idaho	20.08
Wisconsin	26.01	Montana	19.86
South Carolina	25.27	Utah	14.66
South Dakota	25.22		

	Number of deaths	Smoking attributable deaths	% of deaths attributable to smoking
Heart disease	17,030	2,101	12.3
Lung cancer	3,334	2,427	72.8
Other cancers	1,816	363	20.0
Chronic obstructive lung disease	3,649	1,361	37.3
Stroke	3,872	247	6.4
Other	1,307	154	12.5
Total	31,008	6,640	

quit. Active physician support of antismoking policies can create a social climate that will accelerate the decline of Indiana's most important health behavioral risk factor.

Indiana physicians should assume a leadership role in political efforts to create smoke-free hospitals, clinics, worksites and public environments. Effective school health education, higher cigarette

excise taxes and laws that prohibit the distribution of free cigarette samples also are worthy of physician support.

Conclusion

Reducing the national adult smoking prevalence to 25% is one of the U.S. Public Health Service's 1990 Objectives for the Nation. Many individual states already have achieved this goal.

Cigarette use is declining in Indiana, but the current adult smoking prevalence of more than 27% remains one of the highest in the country. Greater efforts are needed to help Indiana approach the Surgeon General's goal of becoming a smoke-free society by

the year 2000. □

Dr. Lindsay is an assistant professor in the Department of Physiology and Health Science at Ball State University in Muncie. Sumita Joseph is with the Health Education Division at the Indiana State Board of Health.

Correspondence: Gordon B. Lindsay, Ph.D., Department of Physiology and Health Science, Ball State University, Muncie, IN 47306-0510.

References

1. Trends in the incidence of myocardial infarction and associated mortality in a large employed population. 1957-1983. *N Engl J Med*, 312(16):1052-1055, 1985.

2. U.S. Department of Health and Human Services, "The Health Consequences of Smoking - Cancer." *A Report of the Surgeon General*. Publication DHHS (DHS)82-50179. Rockville, Md: 1982.

3. Kagay M: Prevention in America: Steps people take or fail to take for better health. Louis Harris and Associates Inc. Riddle Press, November 1983.

4. Fisher EB Jr: Smoking cessation: A practical guide for the physician. *Clin Chest Med*, 7(4):5551-5565, 1986.

5. Sachs DD: Cigarette smoking: Health effects and cessation strategies. *Clin Geriatric Med*, 2(2):337-362, 1986.

6. Kuebler TW: Political management of the cigarette smoking patient. *J Indiana State Med Assoc*, 74(4):220-222, 1981.

7. Janz NK, Becker MH, Kirscht JP, Emker SA, Billi JE, Wooliscroft JO: Evaluation of a minimal-contact smoking intervention in an outpatient setting. *Am J Public Health*, 77(7):805-809, 1987.

The neurological sequelae of mononucleosis

Michael D. Fisher, M.D.
Patrick Foley, M.D.
Thomas Lunsford, M.D.
Indianapolis

A 37-year-old white woman was admitted with a six- to eight-week history of lower extremity weakness and bilateral calf tenderness. The weakness was symmetrical and, in the past several weeks, was ascending to cause weakness in her upper extremities as well.

She had transient numbness in her lower extremities. Her weakness had progressed to a point that she had to use a walker. Before this decline in strength, she was a very active and functional homemaker. There was no history of recent travel. There was no fever and only mild arthralgias. She had no complaint of sore throat, rash or swollen glands and had been more fatigued. She was not taking any medications at the time of admission. She is allergic to codeine and smokes one to two packs of cigarettes per day. She denies ethanol use.

Physical examination

On physical examination, her blood pressure was 114/70, heart rate was 92, respiratory rate was 18 and temperature was 98.1° F. Her pupils were equally round and reactive to light and accommodation. Extraocular muscles were intact. Tympanic mem-

branes were normal in appearance. Her throat was clear, and only minimal cervical lymphadenopathy was noted.

The patient's chest was clear, and her heart rate was regular, without murmurs or gallops. Her abdomen was soft and nontender, and no hepatosplenomegaly or masses were noted. Her extremities were without clubbing, cyanosis or edema, and her pulses were 2+ bilaterally. On neurological exam, she was unable to walk without considerable assistance of a walker. She was unsteady standing, and Rhomberg test was negative.

The patient was oriented to person, place and time. She was able to perform finger to nose and heel to shin without difficulty. Motor strength exam of lower extremities was three out of five and four out of five in upper extremities. Light touch and pinprick were intact. Deep tendon reflexes were diminished markedly in both upper (one to two plus) and lower extremities (zero

Abstract

A 37-year-old white woman presented with bilateral symmetrical ascending motor weakness. Subsequent evaluation revealed she was suffering from infectious mononucleosis. This case demonstrates that one should consider mononucleosis when presented with an idiopathic disease of the nervous system. The classic features of mononucleosis, such as pharyngitis, lymphadenopathy or splenomegaly, need not be present.

to one plus). Cranial nerves were intact. The fundi were benign, and no nystagmus noted.

Hospital course

An electromyograph (EMG) of the lower extremities was performed. At rest, no denervation fibrillation was seen. With activation, there was a considerable reduction of motor units generally, and both amplitude and number were decreased. Reduced recruitment and interference were seen. Rare fibrillations, some possible fasciculations and some positive sharp forms were seen. Occasional polyphasic were seen.

Nerve conduction studies of the peroneal nerves were obtained. On the right, a slow nerve conduction time of 38.5 m/sec was elicited (N=44-57). The left peroneal nerve was low normal at 46 m/sec.

The EMG and nerve conduction studies (NCS) were consistent with some progressive denervation neuromyopathy, inflammatory myopathy, a polyradiculopa-

thy such as Guillain-Barre syndrome or some sort of toxic or metabolic neuromyopathy.

Laboratory revealed a white count of 10.2 K/mm^3 with a differential of 54 segmented neutrophils, 1 band, 38 lymphocytes, 4 monocytes, 2 eosinophils and 1 atypical lymphocyte. Hemoglobin was 14.0 gm/dL . Westergren sedimentation rate was 27 mm/hr . A routine chemprofile revealed serum glutamic pyruvic transaminase (SGPT) of 138 ($N=0-45$), gamma-glutamyl transpeptidase (GGT) of 90 ($N=0-65$), serum glutamic oxaloacetic transaminase (SGOT) of 50 ($N=0-40$) and alkaline phosphatase of 122 ($N=30-115$). Thyroid function tests, calcium, antinuclear antibody, rheumatoid fever, aldolase and a heavy metal screen were all negative.

A lumbar puncture revealed no red blood cells or white blood cells, protein of 36 ($N=15-45$) and glucose of 65 ($N=40-80$). Gram stain and cultures were negative. An immunophoretic protein profile on the cerebrospinal fluid was normal.

Magnetic resonance imaging of the head was normal. A gastrocnemius muscle and sural nerve biopsy was performed and revealed no diagnostic changes.

Because of the mildly elevated liver enzymes, a mono-test was obtained and was positive. Acute and convalescent Epstein-Barr and cytomegalovirus titers were obtained and are in the Table. This strongly suggests a diagnosis of Epstein-Barr mononucleosis.

The patient began physical therapy and a tapering dose of prednisone and was followed up as an outpatient. During the course of several months, she gradually improved, regained her strength and was able to resume her daily activities. A repeat EMG and NCG returned to normal.

Discussion

Neurological complications of infectious mononucleosis are rare, and their incidence has been reported to be between 0.37% and 7.3%.¹ Only 5% of all cases of mononucleosis are seen in patients older than 30.² Neurological complications include lymphocytic meningitis, encephalitis, Guillain-Barre syndrome, seizures, peripheral neuropathy, acute cerebellar ataxia, transverse myelitis and mononeuritis that tends to affect either the optic, facial, third, fourth or sixth cranial nerves as well as the nerve to serratus ante-

rior.²

This case demonstrates the need to consider infectious mononucleosis when a patient has idiopathic disease of the nervous system. We already had conducted an extensive neurological workup when the mildly elevated liver enzymes were found, which led to obtaining the mono-test. Because infectious mononucleosis is so prevalent among young adults, it should be considered in any neurological condition of unknown etiology. The classic clinical manifestations of mononucleosis, such as pharyngitis, lymphadenopathy or splenomegaly, need not be present.³ □

Dr. Fisher is in private practice in Greencastle with staff privileges at Putnam County Hospital and courtesy staff privileges at St. Vincent Hospital in Indianapolis. Dr. Foley is associate director of family practice and Dr. Lunsford is a staff neurologist at St. Vincent Hospital in Indianapolis.

Correspondence and reprints: Michael D. Fisher, M.D., P.O. Box 566, Greencastle, IN 46135.

References

1. Mohanaruban K, Fisher DJH: A combination of cranial and peripheral nerve palsies in infectious mononucleosis. *Postgrad Med J*, 62:1129-1130, 1986.
2. Brown JL: Case report: Brachial neuritis following infection with Epstein-Barr virus. *J Infect*, 15:173-176, 1987.
3. Silverstein A, Steinberg G: Nervous system involvement in infectious mononucleosis. *Arch Neurol*, 26:353-358, 1972.

Table

Negative		Acute	Convalescent
<1:20	EBV-VCA titers	1:80	1:160
<1:20	EBV-EA titers	1:40	1:10
<1:8	CMV-ABS titers	1:64	1:16

New trends in the surgical treatment of non-small cell lung cancer

Cameron D. Wright, M.D.
Kenneth A. Kesler, M.D.
Indianapolis

Lung cancer remains a major health problem, with approximately 150,000 new cases projected for 1988 along with 110,000 deaths. It is the most common cause of death from cancer in both men and now in women.

Cure rates remain depressingly low and have not changed dramatically in the past 20 years. Only 13% of lung cancer patients live five years or more following diagnosis. Nevertheless, there are new aspects of relevance regarding operative therapy that can benefit some patients with lung cancer.

An increasing proportion of patients with lung cancer have markedly impaired pulmonary function or such poor overall medical condition that resection, which offers the only hope of cure, previously was not considered to be a reasonable treatment option. However, a number of reports during recent years have demonstrated the safety of limited resections, consisting of either generous wedge resection or formal segmentectomy,¹ in these high-risk patients. This may be done at a small risk of local recur-

rence; however, the extremely low operative mortality, conservation of pulmonary parenchyma and good survival rates have made these procedures worthwhile treatment options for the thoracic surgeon.

Bronchial sleeve resection, most often associated with an upper lobectomy, is another means of conserving pulmonary function in select patients with impaired pulmonary reserve. Rather than performing a standard pneumonectomy for a tumor extending into the ipsilateral mainstem bronchus originating from an upper lobe, standard techniques of tracheo-bronchial reconstruction can be applied and these patients spared

Abstract

Lung cancer is the most common cause of cancer death in both men and women now. Limited resections have proven to be safe and effective in high-risk patients. Sleeve resection now offers both conservation of pulmonary function and enhanced resectability to select patients. Chest wall resections in association with pulmonary resection offer worthwhile survival if the mediastinal lymph nodes are not involved. Solitary cerebral metastases can now be resected with favorable results in carefully selected patients. New treatment strategies, such as neoadjuvant therapy, are on the horizon for advanced stage patients. Operative mortality has declined significantly compared to past decades. While the prognosis for most patients with non-small cell lung cancer remains grim, surgery is now possible in select subgroups with relatively good results.

a significant portion of functioning lung (*Figure 1*). Survival is not diminished by this lung conservation technique, and complications are essentially no different than standard pulmonary resections.² Involvement of the main carina is now no longer an absolute contraindication in select patients with lung cancer.

The most common situation necessitating a carinal resection is a locally advanced, right upper lobe tumor involving the right mainstem bronchus and carina. A sleeve type of resection removing the distal trachea, carina and right lung can be performed with reconstruction by anastomosing the distal trachea to the left main

bronchus (Figure 2). While this procedure previously had prohibitive risks, with experience, the operative mortality is 10% and can offer five-year survival in up to 25% of these patients.³

Chest wall attachment or invasion used to be synonymous with unresectability and a hopeless case for cure. However, in patients without evidence of mediastinal nodal involvement, survival is not significantly affected if an en bloc resection of the lung and chest wall is performed. Reconstruction is not necessary if the defect lies underneath and is thus buttressed by the scapula. If the defect is anterior or lateral, the chest wall defect is reconstructed to prevent paradoxical motion of the chest wall. Five-year survival is approximately 50% if mediastinal lymph nodes are not involved.⁴

Superior sulcus (Pancoast tumors) can now be cured in a significant proportion of patients. The treatment approach has been standardized with diagnosis made by a percutaneous needle biopsy followed by 30 Gy of irradiation

to the apical chest wall and finally en bloc resection. Again, if the mediastinal lymph nodes are not involved, five-year survival is remarkably good, ranging from 30% to 50%.

Cerebral metastases are a common site of failure in patients with lung cancer, and many are solitary. A surgical approach has been taken to carefully selected patients who have resectable lung cancer and a solitary brain metastasis. Usually, a craniotomy is performed first, followed by pulmonary resection. Postoperative cranial radiation is probably beneficial. In select patients without mediastinal nodal involvement, five-year survival has varied from 20% to 45%.⁶ Patients should, therefore, be carefully staged to determine if they would benefit from this aggressive surgical approach to both lesions.

A large proportion of lung cancer patients have stage III disease, that is, with either mediastinal nodal involvement or locally advanced tumor due to invasion of mediastinal structures. Five-year survival of those patients either

with surgery or irradiation is poor. A recent renewed interest has been placed in preoperative neoadjuvant therapy of these advanced stage patients. Using irradiation and cisplatin-based chemotherapy regimens, a relatively high objective response rate has been achieved, along with an increased resectability rate. Moreover, in some surgical specimens, no tumor has been found after resection.⁷ There appears to be an enhanced survival over historical controls; however, proper randomized studies have not been done to date. Nonetheless, this represents an encouraging note for the treatment of patients with stage III lung cancer who previously have had poor chances for cure.

Operative mortality for lung cancer resection has declined progressively. In a recent large study of more than 2,000 patients, the operative mortality was just more than 2% for lobectomy and 6% for pneumonectomy.⁸ The operative mortality does rise in those patients older than 70. Many factors have contributed to this decreased

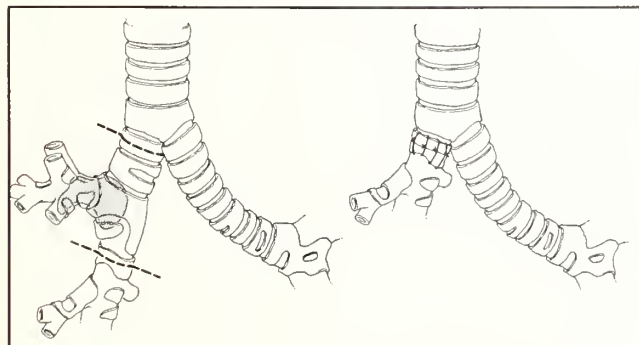


Figure 1: Right upper lobe bronchial sleeve resection for an endobronchial tumor involving the mainstem bronchus.

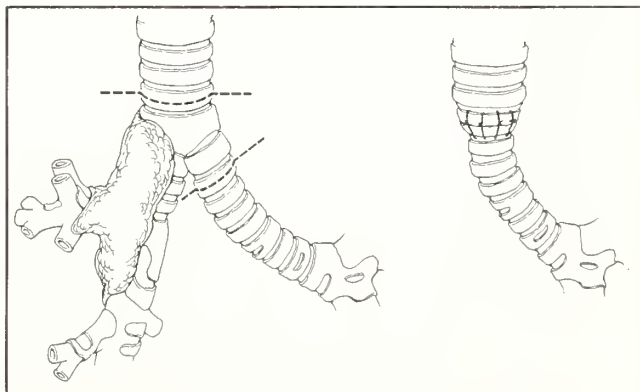


Figure 2: Right tracheal sleeve pneumonectomy with trachea to left mainstem bronchial anastomosis for a tumor involving the mainstem bronchus and carina.

mortality, including improved staging, more careful attention to preoperative preparation of the patient, including optimizing pulmonary function, and better post-operative intensive care. □

The authors are with the Department of Surgery, Section of Thoracic Surgery, at the Indiana University School of Medicine in Indianapolis.

Correspondence and reprints: Cameron D. Wright, M.D., Department of Surgery, Section of Thoracic Surgery, Indiana University School

of Medicine, Emerson Hall #212, Indianapolis, IN 46223.

References

1. Miller JL, Hatcher CR: Limited resection of bronchogenic carcinoma in the patient with marked impairment of pulmonary function. *Ann Thorac Surg*, 44:340-343, 1987.
2. Frist WH, Mathisen DJ, Hilgenbert AD, Grillo HC: Bronchial sleeve resection with and without pulmonary resection. *J Thorac Cardiovasc Surg*, 93:350-357, 1987.
3. Darteville PG, Khalife J, Chapelies A, et al: Tracheal sleeve pneumonectomy for bronchogenic carcinoma: Report of 55 cases. *Ann Thorac Surg*, 46:68-72, 1988.
4. Piehler JM, Pairolero PC, Weiland LH, et al: Bronchogenic carcinoma with chest wall invasion: Factors affecting

survival following en bloc resection. *Ann Thorac Surg*, 34:684-690, 1982.

5. Wright CD, Moncure AC, Shepard JO, et al: Superior sulcus lung tumor. Results of combined treatment (irradiation and radical resection). *J Thorac Cardiovasc Surg*, 94:69-74, 1987.

6. Hankins JR, Miller JE, Salzman M, et al: Surgical management of lung cancer with solitary cerebral metastasis. *Ann Thorac Surg*, 46:24-28, 1988.

7. Martini N, Kris MG, Grolla RJ, et al: The effects of preoperative chemotherapy on the resectability of non-small cell lung carcinoma with mediastinal lymph node metastases (N2 MO). *Ann Thorac Surg*, 45:370-379, 1988.

8. Ginsberg RJ, Hill LD, Eagan RT, et al: Modern 30-day mortality for surgical resections in lung cancer. *J Thorac Cardiovasc Surg*, 86:654-658, 1983.

■ drug names

Look-alike and sound-alike drug names

Category: Brand name: Generic name: Dosage forms:	AEROLATE	AEROLONE
	Bronchodilator	Bronchodilator
	Aerolate, Fleming	Aerolone, Lilly
	Theophylline	Isoproterenol
Category: Brand name: Generic name: Dosage forms:	ANISOTROPINE	ANISINDIONE
	Gastrointestinal anticholinergic	Anticoagulant
	Valpin, DuPont	Miradon, Schering
	Anisotropine methylbromide	Anisindione
Dosage forms:	Tablets	Tablets

Benjamin Teplitsky, R. Ph.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions.

Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors. □

COMMITTED TO EXCELLENCE



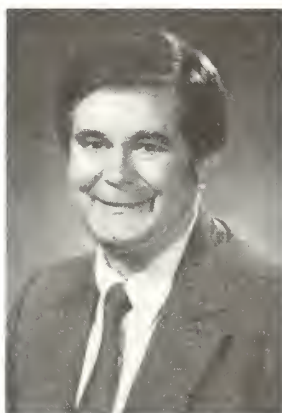
**PRESIDENT'S
ACHIEVEMENT
AWARD**

**Presenting
the winners of the 1989
Roche President's Achievement Awards**

Roche Laboratories is proud to honor these outstanding sales representatives, chosen for their unparalleled dedication to the healthcare field, professionalism and consistent high level of performance. Please join us in congratulating these exceptional individuals.



Lynn Ellen Bechtold



William E. Bissey



Jeanne Marie Gadiant



Ronald A. Kobe



D. Russ Williams

Turn to the following page and find out how your award-winning Roche representative can help both you *and* your patients.

Your Roche Representative Would Like You To Have Something That Will...

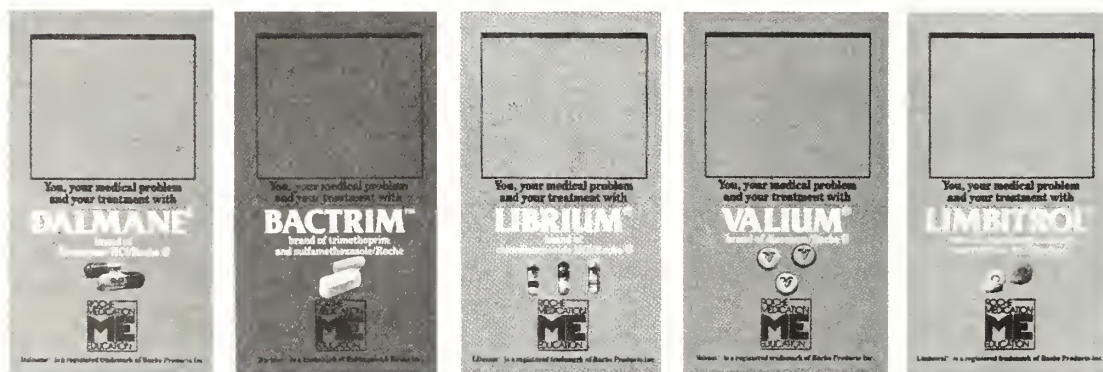


- ... improve patient satisfaction with office visits.
- ... improve patient compliance with your instructions.
- ... reduce follow-up calls to clarify instructions.

Roche product booklets ...

- offer a supplement to, not a substitute for, patient contact.
- support your specific instructions to the patient.
- provide a long-term reinforcement of your oral counseling.
- are available in *Spanish*.

Because you are the primary source of medical information for your patients, we invite you to look over the Roche product booklets shown below. Ask your Roche representative for the new catalog brochure of patient education materials and for a complimentary supply of those booklets applicable to your practice, including the WHAT IF Book in large type.



Working today for a healthier tomorrow

"I want a malpractice carrier that knows how to fight. That's why I'm with Medical Protective."

At Medical Protective, fighting for our doctors is our number one priority. We know we're not just insuring your finances. We're protecting your professional reputation, an asset no amount of insurance can replace.

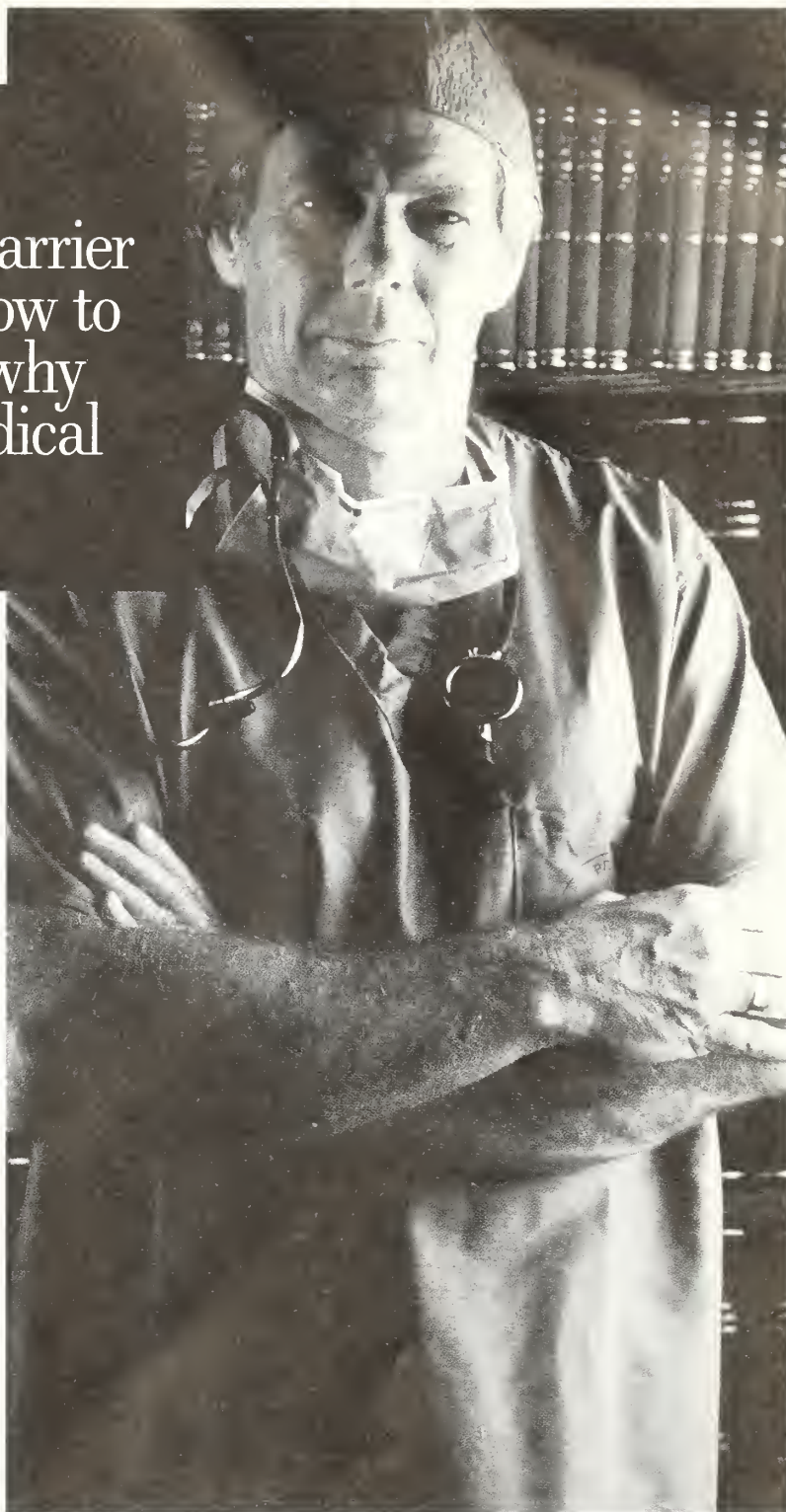
And when we go to battle, our winning record is unsurpassed. The reasons are simple.

First, no one knows more about defending doctors than we do. We invented professional liability insurance 90 years ago and have been defending doctors ever since.

Second, since our inception we have employed only the most experienced and skilled malpractice lawyers in your area. We will never waver from this commitment.

Third, commitment of this kind requires financial strength and stability. With nearly a billion dollars in assets and a continuous A.M. Best A+ (Superior) rating, we don't have to make individual case decisions based on the bottom line. We have the financial clout to do whatever it takes to serve our doctors.

If you would like this kind of aggressive defense in your corner, don't wait. Call The Medical Protective Company General Agent in your area today.



**THE
MEDICAL PROTECTIVE COMPANY**

Serving Indiana Physicians Since 1908.

Robert B. Newell, J. Barton Lyon, Suite 240, 2260 Lake Avenue, P.O. Box 5174, Fort Wayne, IN 46895 (219) 422-4783
Vernon E. Hoover, H. Jere Frey, Michael W. Kinzer, 6100 North Keystone Avenue, Suite 237, P.O. Box 20576,
Indianapolis, IN 46220 (317) 255-6525

Women in medicine: A balancing act

Betty A. White
Indianapolis

Let's say we're at the circus, and the star of the show is about to appear.

A few clowns still linger in the background, snickering behind their white-gloved hands. The lions have completed their act, but muffled roars and snarls can be heard as they are led back to their cages.

The crowd grows still as spotlights converge on a single figure poised on a tightrope high above the center ring. She wears sensible shoes, a conservative suit and a stethoscope. In her hand she carries not a parasol but a grocery list. The Doctor is IN.

Don't feel sorry for this physician on a tightrope. She worked hard to get there, and she loves it.

Statistically, she is 38 years old, married (often to another physician) and a mother. She specializes in pediatrics, internal medicine, psychiatry, pathology or other field where she can have some control of her time. Although she brings in a major share of the family income, she bears most of the responsibility for child care and home management.

The story behind the statistics

To see beyond the statistics, we interviewed six women of varying ages and backgrounds. We asked them about their experiences in medical school and residency, their lives now and their views about the future of women in medicine.

During the interviews, some universal themes emerged:

- Gratitude to the women who blazed a path for them
- Impatience with talk of harassment or discrimination
- Concern about balancing their needs for professional and personal development with the needs of their families
- Optimism about the future of medicine and the influence women will wield in the 1990s and beyond.

When we asked these women whether they had observed discrimination during their years in training or as physicians, the younger women said they had but not to the degree that their predecessors had encountered. Great credit was given to women who survived the pressures in medical school and residency in the 1940s and 1950s, thus paving the way for their younger sisters.

The women also said their greatest problem was not with harassment or discrimination against them by professors or colleagues. In the fairly rare instances when they felt such discrimination, these goal-oriented women simply ignored it and went on their way. Their real problem has been with patients. Researchers say the female resident or physician who is blond and blue-eyed will have to present a very conservative image to be taken seriously by her patients. Some patients, women in particular, are wary of treatment by a female physician.

Madalyn Squires, M.D., an Indianapolis obstetrician/gynecologist, recalls an incident that oc-

curred during her first year of practice. "A young woman who needed an emergency caesarean section told me point-blank, 'I'm not going to have any woman operating on me.' I had to call in one of my partners to do the surgery."



Dr. Squires

When Dr. Squires first wanted to go to medical school, the family doctor talked her parents out of sending her. "It was a com-

mon idea in those days that women just took up space in medical school. If five enrolled, three would drop out. And they'd taken spaces that should have gone to men. So, I became a nurse.

"Ten years later, when I knew I'd never be happy until I became a doctor, a counselor told me I was too old. But things had changed. It was recognized that women were going to be good doctors. The interviewer at med school told me to 'Go for it. You belong in medicine, and I'll fight for you.'"

Like many promising medical students, Dr. Squires also received encouragement and support from a senior physician mentor.

Studies show that more than 40% of women medical students have had a mentor, generally a more senior physician. Two-thirds of these mentors were male. This figure should not be surprising since few women have been in a position to lend influence and

support to a younger student.

Married for 21 years (she has a daughter, 14; a son, 6; and is expecting a baby this month), Dr. Squires knows what the tightrope syndrome is all about. "My husband has supported me every step of the way. And he takes half or more of the responsibility for child care.

"Still, I sometimes come home after eight hours delivering babies, making rounds and so on – and everyone looks at me and says 'What's for supper?'"

Clock watching

In a 1987 article in the *Journal of the American Medical Women's Association*, Lillian Kaufman, PhD., wrote that women live by four clocks – the biological clock, the social clock, the professional clock and the spiritual clock. And they're all ticking away at different speeds.

The biological clock says time is running out. The social clock says, now you should be married, now you should have children and so on. The professional clock says, watch me or no one will take you seriously, you'll miss opportunities. The spiritual clock says, take care of your creative and spiritual needs.

As one of our interviewees commented, the same clocks are ticking for men, but consider the differences. Men do not face a cessation of their fertility. While the social clock and professional clock tick merrily along, most men simply do what is expected of them. This is not to say that men don't have career problems, but certainly household details have not been a male concern. ("His job was to sit down and read the paper," she remarked). The spiritual clock is the one timepiece that

men and women may share equally.



Dr. Keener

Finding time for personal growth is not easy. Patricia Keener, M.D., and associate chairman, Department of Pediatrics, Indiana University School of Medicine, knows the multiple demands of family, profession and community.

In the course of juggling the professional and personal demands of her life, Dr. Keener has developed her own four-part plan for a satisfying life based on nurturing yourself, your family, your profession and your community.

"You have to find out what nourishes you. Sometimes we don't feel we have the time to even consider what we need. Do you like to read, garden, run marathons? Do it.

"My husband is a physician, too, so he understands my problems and helps with family responsibilities. I may not have been able to attend every event or always be right there, but I've always been available to my children by my beeper. They know they can reach me fast.

"To nurture your career, you have to plan. Be realistic about what you want to accomplish and when you can do it. And along the way, you need to do something to benefit your community at large. Ignoring any of these outlets for creativity will diminish your satisfaction in life."

Having it all

Mary C. McCarthy, M.D., clinical associate professor of surgery at the Indiana University School

of Medicine, agrees, adding "I'm not willing to sacrifice parts of my life."



Dr. McCarthy

Dr. McCarthy has five-month-old twins and two other children, ages 2 and 4. She returned to work in January after interviewing 70 potential sitters for the twins. Eventually, she heard about a nanny school in Cleveland, and she now has a professional nanny to care for the twins. The older children remain in the child care setting they already are accustomed to.

As a woman in academia, Dr. McCarthy can have her career as a surgeon without the irregular hours of a surgeon always on call. The trade-off is that she is up against a system that has not kept pace with other areas of opportunities for women.

According to information gathered by the American Medical Association, as of 1988 only 3 of 127 medical school deans were women. In 1988, only 19.4% of medical school faculties were women. Of these, 67% were assistant professors or instructors.

In private practice, Dr. McCarthy would undoubtedly make more money, but at a cost she is not willing to pay.

But, no matter what field of medicine a woman might enter, she will make less money than her male counterpart. In 1987, the unadjusted income for male physicians was \$137,500. For female physicians, unadjusted income was \$83,000.

The reasons? Female physicians as a group work fewer hours and see fewer patients.

Doctor prescribes ways to reduce stress

Tina Sims
Managing editor



Dr. Allen

Deborah I. Allen, M.D., knows something about stress among women physicians.

Dr. Allen, chairman of the Department of Family Medicine at the Indiana University School of Medicine, has become an authority on the subject through research for her book, *Stress and Women Physicians*. The book, released in 1984, has been published in three languages and is used as a textbook in some medical schools. The second edition of the book is due out this spring.

Dr. Allen also has done research for magazine articles. Her most recent work was "Women in Medical Specialty Societies: An Update," published in the Dec. 22/29, 1989, issue of *JAMA*. (See abstract on page 202 of this issue.)

She became interested in stress among her colleagues while in medical school. As a member of a class that included more women than in

previous years, she observed many "firsts" taking place. "I was there when the first women got pregnant in our residency. I guess it becomes very natural to wonder who are these women and how are we going to ever incorporate all aspects of our lives ... I got interested in following trends about what we knew about the older women and what was happening with the younger group and how they differed."

After checking the literature for information on the topic, she learned not much had been written. She then decided to gather her own material. The result was the book, written with a friend, Marjorie A. Bowman, M.D., of the Bowman Gray School of Medicine in Winston-Salem, N.C.

Dr. Allen offers some advice on how women physicians, especially those who also are wives and mothers, can reduce stress:

- Take care of your health. Exercise, eat three meals a day and get as much rest as you can.
- Make some time for yourself. Learn to manage your time so your schedule includes some time for you to do what you want.
- Learn to delegate. "In the long-range plan of being a physician ..., grocery shopping is not really a task that is very important and neither is house cleaning ...

We should hire someone to do them. They're time-consuming, stressful tasks that have to be done but don't really require an M.D. degree to do."

- Find a supportive spouse. This advice is offered to single physicians, so they can discuss delegation of household chores and work out a schedule with a future spouse before it causes stress.
 - Find reliable child care. If a woman physician is having trouble with stable child care providers, "it will be total distraction all day long."
 - Find a practice that fits your particular needs. This could mean a practice with steady, regular hours that allows women to see their children off to school. "It doesn't mean just working part time. It means controlling what you're doing."
 - Seek the help of a counselor if you are having trouble juggling roles and feel you're not managing very well.
- Dr. Allen tries to practice what she preaches. She has hired a nanny, house cleaners and someone to pick up her dry cleaning. She tries to relax by playing with her children and occasionally playing golf. But, she says, "I still haven't got anybody to do my grocery shopping." □

Developing political savvy

Effecting changes in any field requires united action that springs from a wide base of influence. Up till now, women have not been a power in the American Medical Association or in most of the specialty associations.

But it is through the specialty associations that Dr. McCarthy and many other women expect to make their presence felt. Often, the AMA reaches into the specialty associations for expertise on

issues. From this base, women can begin to influence national policies.

But so far, female participation has been mostly self-initiated. Few specialty associations work to enroll women. Only two specialty associations now have an equivalent number of women physicians in the specialty and women members in the society. They are the American Academy of Family Physicians, with 15% of women in the specialty and 14% in the soci-

ety, and the American Psychiatric Association, with 21% women in the specialty and 20% women members in the society.

Meanwhile, membership in the American Medical Women's Association is growing steadily. It is particularly popular among young women.

Are women good at association politics? Dr. McCarthy and other women in our panel don't think so. "But, we are working at it," Dr. McCarthy says. "We are learning to network as men have always done."

Joyce Byllesby, M.D., is president-elect of the Indiana Association of Pathologists and chief of staff at Davis County Hospital in Washington, Ind.

Dr. Byllesby doesn't believe that women are attuned to "success, big money and all that goes with it. We seem to lack the drive for it." She considers her own prestigious posts more a matter of being there when someone was needed.

But this position doesn't reflect the stamina and determination of a woman who beat tuberculosis to go back to medical school in South Dakota in the 1950s and enroll as the one female student in a class of 35. She coped with faculty members who denigrated women and made sexual remarks. "It varied from group to group and class to class. I'd just walk away."



Dr. Wagner

Virginia Wagner, M.D., an Indianapolis pediatrician, graduated from medical school in 1955. She too experienced prejudice and ignored the

Table 1

1988 distribution of U.S. medical school faculty by sex and rank

	Male	Female
Professor	31.5%	9.4%
Associate professor	25.8%	19.7%
Assistant professor	33.7%	49.2%
Instructor	6.9%	17.4%
Other	2.0%	4.2%
Missing	.1%	.1%

Source: AAMC Faculty Roster System Numbers Book, 1988. Women comprise 19.4% of medical school faculties; 67% of these are assistant professors or instructors.

Table 2

Unadjusted net income among non-federal patient care physicians (excluding residents)

	In thousands of dollars:		
	1982	1984	1987
All physicians	97.7	108.4	132.3
Men	100.8	112.5	137.5
Women	63.7	68	83

Source: AMA Socioeconomic Monitoring System - Center for Health Policy Research. Unadjusted net income (UNI) for female physicians is 60.4% of male physician UNI in 1987, down from 63.2% in 1982.

remarks. "Today, medical professors know they can be sued," Dr. Wagner says.

"The Academy of Pediatricians has just elected its first woman president, a wonderful woman. But, I think I'll be dead before the AMA elects a woman president." Dr. Wagner adds, "Women usually begin participating in medical organizations late in life. They've been too busy as wives and mothers. Then it takes a long time to get a high position."



Dr. Khalouf

Shirley Khalouf, M.D., who specializes in physical medicine and rehabilitation in Marion, is the only woman ever to have served as

president of the Indiana State Medical Association. She believes it is important for women to become informed leaders in the medical community.

"Women must become more politically astute than we have been taught to be. We need to be more aware of the big issues because they do trickle down. Even as kids, men are taught to be socially aware," Dr. Khalouf says. "Women need to catch up."

"Men have had some practical advantages. I've been in meetings where we were discussing important issues. When the meeting broke for lunch, the men would continue their discussion in the men's room. I'd be alone in the

Abstract of "Women in Medical Specialty Societies: An Update"

The following is the abstract of the article "Women in Medical Specialty Societies: An Update," published in the Dec. 22/29, 1989, issue of *JAMA* and written by Deborah I. Allen, M.D., of Indianapolis:

The question of whether women are joining medical specialty societies at the same rate as their male counterparts has not been studied. A questionnaire was mailed to 48 medical specialty societies representing the 37 specialties listed in the *Physician Characteristics and Distribution in the U.S., 1986 Edition*. The response rate was 79%. Twenty organizations were able to identify the sex of their members, including the seven specialty societies that represent the six most frequently chosen specialties of women physicians. Only in the American Psychiatric Association and the American Academy of Family Physicians was the enrollment of potential female members equivalent to that of male members. If the medical specialty societies do not address the issue of women being under-represented in their societies, they will lose a large potential resource of leadership, participation and financial support. More important, the societies will not be truly representative of their specialties. □

Reprinted with permission from JAMA (1989;262:3439-3443), Copyright 1990, American Medical Association.

ladies' room. The good news is that now there are women in the ladies' room."

Looking ahead to the future of women in medicine, Dr. Khalouf predicts more job-sharing – more people working fewer hours. "As the number of women in medicine continues to increase, we also may see some differences in the way medicine is practiced. More time may be given to a holistic approach. Physicians may become better listeners and more able to

identify emotional and personality problems. As money becomes tighter due to government and insurance company cutbacks, more physicians may be employed.

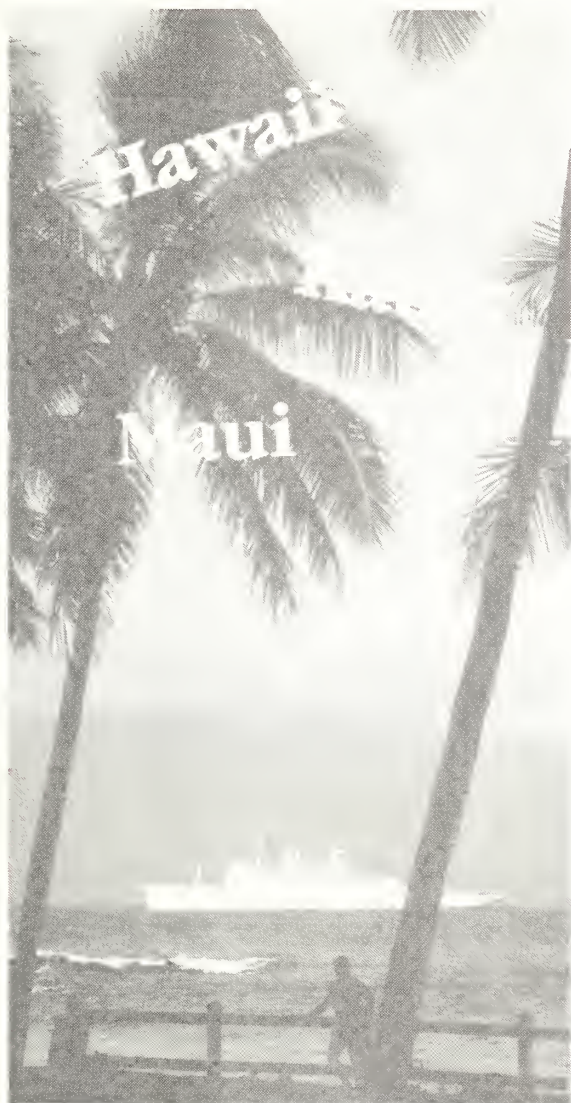
"The progress of women physicians has been wonderful – and should continue in a progressive, gradual way for the good of medicine in general." □

The author is an Indianapolis freelance writer.



SAVE UP TO \$850 PER COUPLE!!!

Spectacular 10-Day Hawaiian Island Cruise Vacation From Only \$1671* Per Person



CRUISE PACKAGE INCLUDES:

- Roundtrip Air From Indianapolis
- Cruise To 5 Ports on 4 Islands:
Oahu – Maui – Hilo – Kona – Kauai
- Two Nights Hotel In Waikiki
with Ocean-View Room
- All Transfers
- Welcome-Aboard Lei Greeting
- All Meals On Board

*Plus taxes & port charges
Certain restrictions apply

INTERNATIONAL TOURS TRAVEL AGENCY

(Official travel agency for the Indiana State Medical Association)

5420 Southern Avenue Suite 100

Indianapolis, IN 46241

Telephones: Indianapolis – 244-3341; Indiana – 1-800-367-5410

EVERY AIRLINE TICKET AND CRUISE DISCOUNTED TO ISMA MEMBERS

International medical training

Robert F. Heimbürger, M.D.
Indianapolis

Developing nations are eager for more training opportunities to become available in developed nations. An even more important need is for health care personnel (HCP) with advanced skills to spend time teaching in developing parts of the world.¹⁻³

Many HCP with special skills spend a few days or weeks lecturing in developing nations. This effort, usually financed by the developing nations, is sincerely appreciated. Few of these experts feel the urge or can be enticed to spend longer periods for day-to-day bedside teaching. The few who have taught in developing nations find that the medical schools,^{4,5} postgraduate training^{1,6-9} and medical practices are rapidly becoming like those in developed countries.

Reading and understanding of current medical literature by HCP in developing nations is impressive because it is done in a second language, not their own.^{1,6,7} HCP from the developing nations are making increasingly frequent and important contributions to international medical literature.

Surgeons and internists from developing nations have been most active in seeking additional skills abroad. They have stimulated growth of many other specialties and subspecialties. Clinical laboratories with well-trained HCP have increased in developing nations. Improved facilities cause HCP to return to their own countries.

The "brain drain" remains a

Abstract

Health care personnel (HCP) from developing nations are seeking to increase their knowledge and skills in other countries. Improved health care in developing parts of the world makes long periods of training abroad less necessary. HCP who train abroad for a year or even less return to their homes and practice new skills. Eighty percent of those who stay abroad three years or more do not return to their native country. Specialists from developed nations teaching for months or years improve health care in developing areas more quickly than individual HCP training abroad.

problem for developing nations. Improved opportunities have drawn a few HCP who have worked abroad for many years back to their own countries.

Rural areas in developing and developed nations need more HCP and health care facilities.^{10,11} People outside urban areas receive less health care because of distance and their reluctance to travel from their homes. More HCP and health care facilities and improved transportation have helped to reduce, but not to eliminate, this problem.

Large cities in the developing nations, like those in the most developed, have areas with high standards of sanitation. They also have visibly substandard areas. Improved sanitation, as important as it is, will not be the entire solution for decreasing the spread of disease. Well-trained HCP working in well-equipped medical facilities are as important. Rural areas worldwide need the improved sanitation gradually being introduced by trained HCP.

Increased medical training has been and will continue to be the most effective way to control contagious diseases, as well as pre-

vent and treat the noncontagious ones. Education and immunization have eliminated many epidemic diseases. Well-trained HCP are needed for continued improvement in health care.

HCP who go abroad to teach, as well as those who go for training, rely on specialists in their fields of interest for advice. This advice should include knowledge of living conditions, in addition to medical opportunities, to make the mundane mechanics of daily living in a foreign culture less time-consuming. Fortunately, HCP with knowledge of international medical and living opportunities are increasing in number to meet the increasing need for their advice.

HCP from developing nations would like "hands-on" clinical experience in developed nations. However, this seldom is available due to licensing and limited training positions. Most HCP from abroad work in experimental laboratories with an opportunity to observe but not participate in clinical activities. This experience gives them a broader appreciation of the need for medical advancement through research. If the

United States is to maintain its place in international medicine, it must improve its opportunities in postgraduate training for HCP from abroad.¹²

Equalizing health care skills and facilities worldwide is the most effective way to control all diseases, particularly epidemics. This requires an increase in medi-

cal training opportunities without increasing the "brain drain" for which governmental travel restrictions have been created.^{13,14} Efforts in public health, as successful as they have been, are not enough unless accompanied by a general improvement in health care facilities and HCP training.

Many philanthropic organiza-

tions, most often religious in nature, have encouraged and funded international medical exchanges.¹⁵ These organizations should receive the recognition and support they deserve.

Some developing nations have contributed significantly to medical advancement. Japan, Taiwan and South Korea are examples.

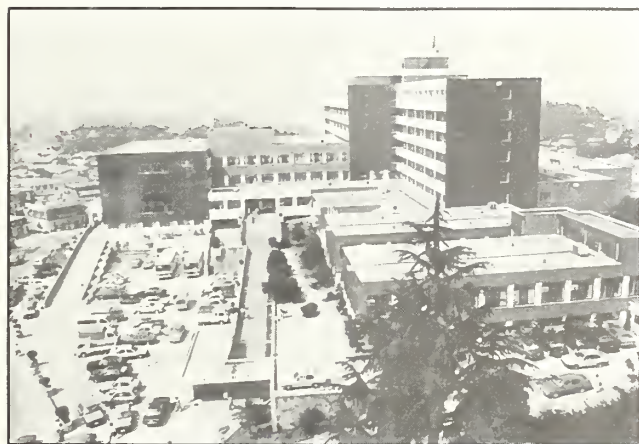


Figure 1: Presbyterian Medical Center in Chunju, South Korea.



Figure 2: Queen Elizabeth II Hospital, built by the British in Kowloon, Hong Kong.

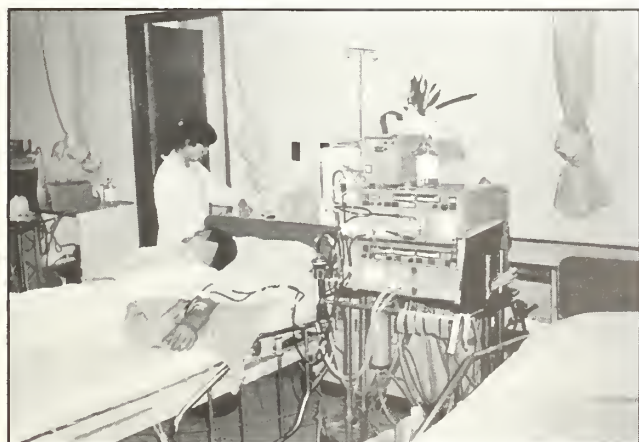


Figure 3: One of the 52 hemodialysis units at Chang Gung Memorial Hospital in Taipei, Taiwan, Republic of China. Each unit dialyzes three patients daily during its 16 hours of use.



Figure 4: A portion of the observation unit, neurosurgical (OBN) in a 2,500-bed hospital complex in Taiwan, Republic of China. This unit is intermediate between the neurosurgical intensive care unit and the open neurosurgical wards.

Their large volumes of well-managed patients attract a small number of trainees from developed nations. A few months or a year increases trainees' clinical experiences more rapidly than in their own country.

Medical educators spending several months or years in bedside teaching in developing nations advance international medicine more rapidly than individual HCP going abroad to learn. □

The author is an emeritus professor of surgery at the Indiana University School of Medicine in Indianapolis and a consultant in neurosurgery at Chang Gung Memorial Hospital and Medical College in Taipei, Taiwan.

Correspondence: Robert F. Heimbarger, M.D., 3941 Cranbrook Dr., Indianapolis, IN 46240.

The author is grateful to the many nations he has been privileged to visit, both officially and unofficially, as a consultant, a lecturer and an observer. The friends and medical colleagues who have shared their goals and ideas form the basis and apparent need for this article. Its purpose is to improve health care worldwide by increasing and improving training opportunities.

References

1. Fairholm DJ: International education: A third alternative. *Neurosurgery*, 18:111-114, 1986.
2. Paton A: Scenes from postgraduate life - foreign exchange. *Postgrad Med J*, 62:311-312, 1986.
3. Shih CJ, director, General Department of Health, Republic of China. Personal communication, 1988.
4. International Symposium on Health Science Education. Part I. *Kaohsiung J Med Sci*, 3(7):429-502, 1987.
5. International Symposium on Health Science Education. Part II. *Kaohsiung J Med Sci*, 3(7):507-559, 1987.
6. Siqueira EB: Neurological surgery in Taiwan (Republic of China), letter to the editor. *Surg Neurol*, 65:723-725, 1986.
7. Parkinson D: Neurosurgery in Taiwan, letter to the editor. *J Neurosurg*, 65:723-725, 1986.
8. Martin CJM: The international responsibility of American medical education. *JAMA*, 257(19):2630-2631, 1987.
9. Marwick C: Foreign medical graduates in U.S. postgraduate education: Concern rises as totals decline. *JAMA*, 72(10):21-22, 1987.
10. Field RJ: Rural medicine - the surgeon's dilemma. *Bull Am Coll Surg*, 72(10):21-22, 1987.
11. Notes and news. Supplies of medicines in developing countries. *Lancet*, 1988; i(8593):1063 (May 7, 1988).
12. Koppiker M: American influence in international medicine (letter). *JAMA*, 258(21):3122, 1987.
13. Bahnson HT (moderator): *The effect of recent legislation upon training of foreign medical graduates in the United States*. ACS Clinitapes. C78-0634, 1978.
14. The 'Lost Brains.' *The Indianapolis Star*, April 15, 1988.
15. Gunby P: Directory lists of overseas service opportunities for physician volunteer; possible factors for considerations in making decisions. *JAMA*, 257(19):2541-2550, 1987.

Medical Equipment Leasing

— Find out how sensible it really is!

High technology equipment allows you to provide quality medical care right from your office. But it comes with some expense and risk. What makes diagnostic and economic sense today may not in five years.

Bell Atlantic TriCon Medical Finance can answer the difficult questions with a variety of finance options that help you acquire what you need economically. With our leasing program you can

have the use of state-of-the-art medical equipment without having to second guess the future. At the end of the lease period, you can decide if the equipment is still valuable to you. If it is, you can purchase it at a pre-determined price. If it is not, simply return it to Bell Atlantic.

We know how to take the pain out of equipment acquisition. Call for a comparative quote and special low member rates.



A member service offered through

 **Bell Atlantic**
TriCon Leasing

Medical Finance

For financial pain relief call: 1-800-322-0444



• LAKE CHARLEVOIX •

DISTINCTIVE LAKEFRONT AND
PARKWAY HOME SITES

Come enjoy the relaxing lifestyle of Lake Charlevoix. Immerse yourself in the luxury of your own private 18 acre lake, nature area and unmatched landscape. Special attention to every detail makes for a uniquely designed living community in one of Indianapolis' most desirable northside locations. Sites are limited. Call or visit Lake Charlevoix today.

Lake Charlevoix will include homes featuring the city's premier builders

- Jim Carriger
- Mark Conreux
- Rex Weiper
- Richard Carriger
- Steve Hoss
- Weston Development, Inc.
- Mandt, Inc.
- Will Wright

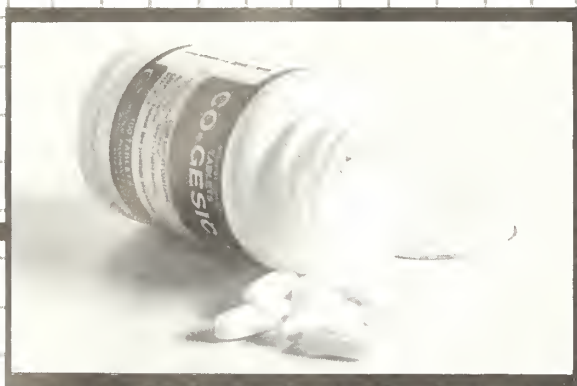


Lots priced from the 50's
Telephone: 255 9832

Located at 6420 Fall Creek Road between Shadeland Ave. and Kessler Blvd.
Hours: Weekdays 3 p.m. to 7 p.m. Saturday & Sunday 1 p.m. to 6 p.m.

Co-Gesic®^{III}

HYDROCODONE BITARTRATE* and ACETAMINOPHEN TABLETS
5 mg and 500 mg *Warning — May be habit forming



Proven
Dependability

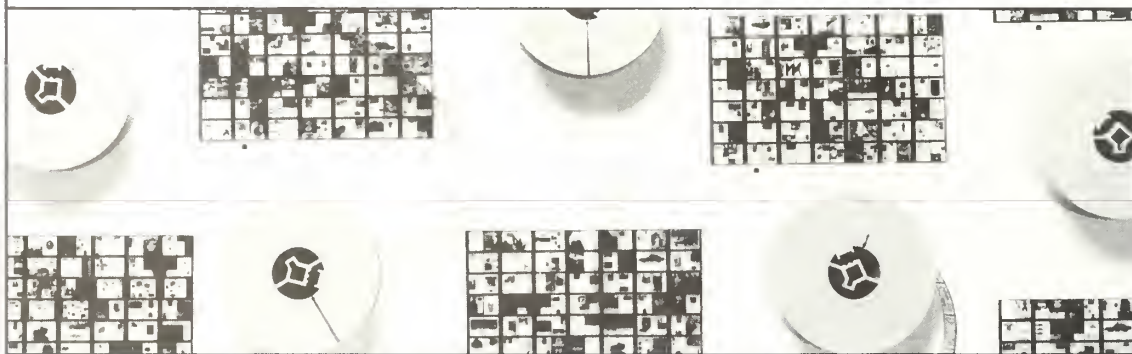


CENTRAL PHARMACEUTICALS, INC.

SEYMOUR, INDIANA 47274 USA

Quality Pharmaceuticals Since 1904

This publication is available in microform.



UMI reproduces this publication in microform: microfiche and 16 or 35mm microfilm. For information about this publication or any of the more than 16,000 periodicals and 7,000 newspapers we offer, complete and mail this coupon to UMI, 300 North Zeeb Road, Ann Arbor, MI 48106 USA. Or call us toll-free for an immediate response: 800-521-0600. From Alaska and Michigan call collect 313-761-4700. From Canada call toll-free 800-343-5299.

U·M·I

A Bell & Howell Company
300 North Zeeb Road, Ann Arbor, MI 48106 USA
800-521-0600 toll-free
313-761-4700 collect from Alaska and Michigan
800-343-5299 toll-free from Canada

Please send me information about the titles I've listed below:

Name _____

Title _____

Company/Institution _____

Address _____

City/State/Zip _____

Phone (_____) _____

1989 Indiana State Medical Association membership report as of Dec. 31, 1989

Active 1st year Resident Senior Inactive Hardship Total

Active 1st year Resident Senior Inactive Hardship Total

Adams	11	0	0	2	0	0	13
Bartholomew/Brown	73	2	2	7	7	1	92
Benton	2	0	0	1	0	0	3
Boone	18	0	0	4	3	0	25
Carroll	7	0	0	3	0	0	10
Cass	33	1	0	9	0	1	44
Clark	90	2	0	4	1	0	97
Clay	11	0	0	3	0	0	14
Clinton	13	0	0	5	0	0	18
Daviess/Martin	13	0	0	7	1	0	21
Dearborn/Ohio	27	0	0	2	0	0	29
Decatur	10	1	0	3	0	0	14
DeKalb	15	0	0	2	2	1	20
Delaware/Blackford	143	4	5	17	6	1	176
Dubois	31	0	0	2	0	0	33
Elkhart	127	5	1	21	10	0	164
Fayette/Franklin	19	0	0	2	1	0	22
Floyd	71	2	2	5	2	2	84
Fort Wayne/Allen	390	7	35	50	19	5	506
Mountain/Warren	8	0	0	2	0	0	10
Gulton	6	0	0	0	0	0	6
Gibson	9	0	0	3	0	1	13
Grant	68	2	1	17	3	1	92
Greene	10	0	0	6	0	0	16
Hamilton	41	0	1	1	0	0	43
Hancock	29	1	0	1	2	0	33
Harrison/Crawford	13	0	0	0	0	0	13
Hendricks	36	1	0	4	1	2	44
Henry	30	0	0	6	1	2	39
Howard	87	1	1	12	7	0	108
Huntington	18	0	0	3	1	0	22
Indpls./Marion	1,454	59	55	194	44	23	1,829
Jackson	20	0	0	3	1	0	24
Jennings	4	0	0	1	0	0	5
Jasper	10	0	0	2	0	1	13
Jay	14	1	0	1	2	0	18
Jefferson/Switzerland	32	0	0	5	0	0	37
Johnson	40	1	0	4	2	0	47
Knox	50	2	0	8	4	0	64
Kosciusko	28	1	0	0	1	2	32
LaGrange	9	1	0	2	1	0	13
Lake	595	2	1	73	24	4	699
LaPorte	107	2	0	15	5	0	129

Lawrence	38	1	0	4	1	45
Madison	119	1	1	23	6	151
Marshall	19	0	0	2	3	24
Miami	14	2	0	3	0	19
Montgomery	28	1	0	2	2	33
Morgan	24	0	1	3	1	29
Newton	2	0	0	2	0	4
Noble	14	1	0	0	1	16
Orange	5	0	0	2	0	7
Owen/Monroe	133	3	1	14	5	156
Parke/Vermillion	7	1	0	3	2	13
Perry	5	0	0	1	0	6
Pike	1	0	0	0	0	1
Porter	116	1	0	7	1	125
Posey	2	0	0	1	0	3
Pulaski	6	0	0	1	0	7
Putnam	12	1	0	2	1	16
Randolph	9	0	0	3	2	15
Ripley	14	0	1	0	0	15
Rush	7	0	0	3	1	11
St. Joseph	267	6	9	50	18	352
Scott	6	0	0	2	0	8
Shelby	20	0	0	2	0	22
Spencer	2	0	0	1	0	3
Starke	9	0	0	1	0	10
Steuben	10	0	1	5	0	18
Sullivan	9	0	0	2	1	12
Tippecanoe	169	1	0	23	13	207
Tipton	8	0	0	3	0	11
Vanderburgh	340	4	7	44	23	421
Vigo	132	1	0	20	9	163
Wabash	22	0	0	4	1	28
Warrick	16	0	0	0	0	16
Washington	6	0	0	1	0	7
Wayne/Union	89	0	0	15	6	110
Wells	51	1	0	8	1	64
White	6	0	0	4	0	10
Whitley	8	1	0	2	0	12
RMS	0	0	203	0	0	203
1989 totals	5,567	124	328	775	249	7,107
1988 totals	5,567	164	363	729	227	7,106
1988 gain/loss	0	-40	-35			

Membership information

	Paid members:	Change from prior year:	Exempt:	Total:
1989	6,019	- 75	1,088	7,107
1988	6,094	+ 125	1,012	7,106
1987	5,969	+ 298	1,014	6,983
1986	5,671	+ 101	1,013	6,684
1985	5,570	+ 303	900	6,470

Irish surgeon to serve as 10th Joseph C. Finneran Professor

Niall O'Higgins of Dublin, Ireland, will serve as the 10th annual Joseph C. Finneran Visiting Professor in Indianapolis later this month.

Professor O'Higgins, chairman of surgery at University College in Dublin, chief of surgery at St. Vincent's Hospital in Dublin and a fellow of the Royal College of Surgeons of Ireland, Edinburgh and England, will speak at St. Vincent Hospital March 30 and at the Indiana University School of Medicine March 31.

Professor O'Higgins' primary interest is breast malignancy, for which he was awarded Master-ship in Surgery in 1974. His subject will be "Aspects of Breast Cancer" at 9 a.m. March 30 in Cooling Auditorium at St. Vincent Hospital. He will speak on "The Nodular Thyroid" the morning of March 31 at the Indiana University School of Medicine Department of Surgery during grand rounds in Myers Auditorium at Wishard Memorial Hospital.

Professor O'Higgins was invited to become the Finneran Professor

by Harris B Shumacker Jr., distinguished emeritus professor of surgery of Indiana University, who in June 1987 was inducted as an honorary fellow of The Royal College of Surgeons. Dr. Shumacker has invited world-renowned surgeons from France, England, Germany, Poland, Sweden and Scotland to serve as the Finneran Professor. This year is the first time someone from Ireland has been selected.

Dr. Joseph C. Finneran came to Indianapolis from Johns Hopkins Hospital at the request of Dr. Shumacker when he assumed the professorship of surgery at the Indiana University School of Medicine. Upon completion of his residency training and after service with the armed forces in Europe, Dr. Finneran became chairman of the surgical service at St. Vincent Hospital.

Professor O'Higgins and his wife, Róisín, will be honored at a dinner March 30 at Woodstock Country Club in Indianapolis. The cocktail hour will begin at 6:30 p.m., followed by dinner and



Niall O'Higgins

a program. Bud McDougal, M.D., chief of surgery at St. Vincent Hospital, has arranged a program following Professor O'Higgins' presentation. The event is open to all interested people. For reservations, call Nancy Wolf, (317) 871-2161. □ — **Information provided by Austin L. Gardner, M.D., Indianapolis**

PUT YOUR MEDICAL CAREER IN FLIGHT.

Discover the thrill of flying, the end of office overhead and the enjoyment of a general practice as an Air Force flight surgeon. Talk to an Air Force medical program manager about the tremendous benefits of being an Air Force medical officer:

- Quality lifestyle, quality practice
- 30 days vacation with pay per year
- Support of skilled professionals
- Non-contributing retirement plan if qualified

Discover how to take flight as an Air Force flight surgeon. Talk to the Air Force medical team today. Call

**USAF HEALTH
PROFESSIONS
317-848-5830
COLLECT**



■ letters to the editor

Leo J. McCarthy, M.D.
Indianapolis

Dr. Rosen's article ("Current transfusion issues," October 1989) is quite timely and concise. Several points need expansion and reinforcement due to their critical importance in providing optimal hemotherapy support.

The possibility of acquiring the human immunodeficiency virus (HIV) by blood transfusion certainly has seized the public's attention and stimulated the staunch belief that one can achieve "zero risk" from a transfusion while not demanding such from any other treatment or therapy.

The public perceives our blood supply to be "unsafe" (infected) and now wishes to use friends, relatives and acquaintances to provide "safe" blood for them. Unfortunately, many physicians have not stressed that fact or are not aware that such designated or directed donors have never proven any safer or less infectious than regular homologous donors.

In fact, some, if not most, directed donors may feel social pressure not to be completely truthful regarding questionable activities and lifestyles, past or present. The main gatekeeper of our blood's safety, particularly concerning HIV, is a truthful, accurate medical history. Therefore, directed donations should be strongly discouraged, especially by the patient's physician.

A report from Israel in a prestigious journal documented fatal graft versus host disease after cardiac surgery when both recipients received directed donor blood. Unfortunately, these directed donor's lymphocytes engrafted in the recipients. Homozygosity for HLA haplotypes, for which a potential family member is heterozygous, is more likely to occur among first degree family members, the customary first choice of directed donors.¹ Therefore, there is now a well-publicized and proven strong reason to discourage directed donations.

However, we should extend every effort to provide the patients' own (autologous) blood for

them. Autologous blood is obviously the very best transfusion option since it does carry a real "zero risk" for infection, disease and alloimmunization.

Autologous transfusions were widely used until World War II casualties stimulated the development of homologous blood donor centers. During 1988, only one in 60 units of blood transfused in the United States was autologous, and surveys suggest that 10% of the total 12 million units transfused could be so provided.

Predeposit donations, intraoperative salvage and hemodilution, reinfusion filters, and, most recently, recombinant human erythropoietin should be used to actively pursue this goal. □

The author is director of transfusion medicine in the Department of Pathology at the Indiana University School of Medicine in Indianapolis.

Reference

1. Thaler M, Shamiss A, Orgad S, et al: The role of blood from HLA-homozygous donors in fatal transfusion-associated graft vs. host disease after open-heart surgery. *N Engl J Med*, 321:25-28, 1989.

Robert M. Gottlieb
Vice-president
Peter Feinstein, Inc.
Cambridge, Mass.

A major reason so few new drugs are developed is the time and expense of human testing.

Because current test tube (in vitro) and animal (in vivo) tests are not reliable predictors of how a compound will behave in humans, researchers rely almost totally on human studies to deter-

mine if a new compound is safe and effective. To a large extent, clinical trials focus on discovering how a drug acts rather than on confirming the results of animal and in vitro tests. As a result, approximately four of five drugs that enter human trials are never approved for marketing. This inefficient testing is an important contributor to drug development costs, which now average \$125 million per new drug.

Transgenic Sciences, Inc. is applying genetic engineering and

transgenic techniques to develop improved in vitro tests and new strains of animals to aid in the discovery, testing and production of new pharmaceuticals, such as AIDS, Alzheimer's disease and heart disease.

These products have the potential to reduce human exposure to toxic compounds during clinical trials and the number of laboratory animals necessary for pre-clinical tests, as well as to reduce significantly drug development costs. □

Lura Stone ISMA Auxiliary president

ISMa Auxiliary members will meet at Amish Acres in Nappanee April 26, 27 and 28 for their annual convention.

The auxiliary in Noble-La-Grange County, home of Lura Stone, ISMA Auxiliary president, is making convention plans.

The 1990 convention will be the occasion for many "firsts:"

- This is the first time the auxiliary will meet Thursday, Friday and Saturday. In previous years, the auxiliary has met Tuesday, Wednesday and Thursday. We hope spouses can attend the convention Friday and Saturday.

- This is the first time a male spouse will be installed as state president in Indiana or any other state.

- This is the first time we will have an educational workshop. Growing Healthy, a comprehensive school health curriculum, will be the topic for a program Saturday from 1 to 3 p.m.

- This is the first time the convention will be held at Amish Acres.

- This is the first time a county auxiliary of only 17 members has hosted the state convention.

First male president

Charles Rodney Ashley, husband of Susan Rogers, M.D., from Marion in Grant County, will be installed as ISMA Auxiliary president.

Mary Lynn Smith of Athens,

Texas, the AMA Auxiliary legislation committee chairman, will install Ashley and the other officers Saturday morning. Mrs. Smith will deliver the keynote address at noon Friday and will greet auxiliary members and physicians after dinner Friday night.

Growing Healthy

Growing Healthy, a comprehensive school health curriculum for students in kindergarten through middle school, will be explained during a workshop format from 1 p.m. to 3 p.m. Saturday.

Marjorie Nichols, R.N., the mother of 10-year-old Joy, said, "The curriculum has had an extremely positive effect on Joy. It has taught her creative thinking, anatomy and physiology, body organs and systems, self-care and the disease process. Growing Healthy has taught her how special she is and why she must take care of her body. The curriculum has social implications. It's uplifting. It's an 'I'm special' type of curriculum. Growing Healthy makes children feel special and helps them develop a positive self-concept. This is where it's at. Prevention."

Thirty-three school corporations in Indiana currently have teachers in 101 schools trained to teach Growing Healthy. Kellie Pavese, facilitator for Indiana, will introduce the program. Four West Noble School Corp. teachers will display anatomical models and teaching materials for this hands-on, learning-by-doing health curriculum.

Amish Acres

Amish Acres is an historic restoration in Nappanee created from an 80-acre old order Amish farm purchased from the estate of the last Amish owner.

Auxiliary members will take a 45-minute guided tour of the Amish house and farm, watch a 20-minute documentary movie titled *Beyond the Buggy*, take a 20-minute horse and buggy ride and have a family-style dinner in the restored hand-hewn barn restaurant.

Plain and Fancy, a Broadway musical classic, will be performed Friday night in the Amish Acres Playhouse. The play, which opened in New York at the Winter Garden Theater in 1955, brought first national attention to the quaint customs, stern morals and picturesque dress and language of the Amish people.

Auxiliary members may browse through the many stores, including a bakery, a fudge shop, a soda fountain and a meat and cheese shop. Gift shops stock such items as handmade quilts, faceless Amish dolls, crockery, hand-crafted toys, apple butter, antiques, tinware, primitive furniture, bolts of calico, cookbooks and hand-quilted wall hangings.

Convention guests will stay in the newly completed, 64-room Comfort Inn Amish Acres.

Noble-LaGrange County Medical Auxiliary members hope the convention will be a pleasant experience for all of the delegates and guests. □

CARDIOLOGY – DIAGNOSTIC & INTERVENTIONAL

NASSER, SMITH AND PINKERTON CARDIOLOGY, INC.



providing

William K. Nasser, M.D.

Michael L. Smith, M.D.

Cass A. Pinkerton, M.D.

James W. VanTassel, M.D.

Dennis K. Dickos, M.D.

John D. Slack, M.D.

Charles M. Orr, M.D.

Jane Howard, M.D.

James H. Adlam, M.D.

V. Michael Bournique, M.D.

Frank J. Green, M.D.

Nancy A. Branyas, M.D.

Charles P. Taliercio, M.D.

Bruce F. Waller, M.D.

Cardiology and Cardiac Catheterization

Echocardiography

Exercise Stress Testing

Coronary Angioplasty

Nuclear Cardiology

Pacemaker Surveillance

Ilolter Monitoring

Percutaneous Valvuloplasty

Electrophysiologic Testing

Coronary Atherectomy

Myocardial Biopsy

Automatic Implantable Cardioverter Defibrillator

Suite 400

St. Vincent Professional Building

8402 Harcourt Road

Indianapolis, Indiana 46260

Telephones:

Office: **317-871-6666**

Toll Free:

800-732-1482 (Indiana)

800-CHD-PTCA (Indiana)

800-CAD-PTCA (National)

PHYSICIAN

REFERRAL ONLY

CARDIOLOGY



INDIANA HEART PHYSICIANS, INC.

Beech Grove Medical Center
112 North 17th Avenue
Suite 300
Beech Grove, IN 46107

With additional offices located in the
Indianapolis-Greenwood area and
Columbus

Indianapolis-Greenwood
(317) 783-8800
(800) 992-2081 (Indiana Only)
Columbus:
(812) 379-2020
(800) 537-9587 (Indiana Only)

H.O. Hickman, Jr., MD, FACC
Thomas M. Mueller, MD, FACC
J. Douglas Graham, MD, FACC
Kathleen H. Flohr, PhD, MD, FACC
Jeffery F. Christie, MD
David J. Hamilton, MD
Stephen H. Kliman, MD, FACC
Thomas C. Passo, MD
Kevin C. Preuss, MD, FACC
Emily A. Diltz, MD, FACC

Cardiology and Cardiac Catheterization
Coronary Angioplasty
Balloon Valvuloplasty
Electrophysiology
Permanent Pacemaker Implantation
Nuclear Cardiology
Doppler and Echocardiography
Exercise Stress Testing
Holter Monitoring
ECG Event Monitoring
Pacemaker Surveillance
Stress Echocardiography
Noninvasive Peripheral Vascular
Evaluation



Indianapolis Cardiology Associates, Inc.

Robert E. Edmands, M.D., FACC

Samuel M. Hazlett III, M.D.

Don B. Ziperman, M.D., FACC

Physician Referral Only

- Cardiology and Cardiac Catheterization
- Doppler and Echocardiography
- Exercise Stress Testing
- Coronary Angioplasty
- Pacemaker Surveillance
- Holter Monitoring

1315 North Arlington Ave.
Suite 100
Indianapolis, IN 46219
(317) 359-5301

7250 Clearvista Dr.
Suite 227
Indianapolis, IN 46256
(317) 841-5385

CARDIOLOGY

FORT WAYNE
CARDIOLOGY

Basil C. Genetos, M.D., F.A.C.C.
Robert W. Godley, M.D., F.A.C.C.
Michael J. Mirro, M.D., F.A.C.C.
Kevin J. Kelly, M.D., F.A.C.C.

Fred Doloresco, M.D., F.A.C.C.
John F. Phillips, M.D., F.A.C.C.
Patrick J. Daley, M.D., F.A.C.C.
William W. Wilson, M.D.

are pleased to announce the association of

James J. Heger, M.D., F.A.C.C.

for the practice of cardiology.

Fort Wayne Cardiology, Inc.

P. O. Box 5603
1912 Carew Street
Fort Wayne, IN 46895-5603
(219) 482-4865
1-800-637-6505 (Indiana)
1-800-334-4371 (Ohio, Michigan, Kentucky, Illinois)

CARDIOLOGY

Cardiology Consultants, P.C.

is pleased to announce the opening of an expanded office at

Saint Joseph Medical Center
800 Broadway
Suite 204
Fort Wayne, IN 46802

offering

full service non-surgical intervention
in diagnostic, clinical, and preventative cardiology.

Robert E. Swint, Sr., M.D., Mark A. Jones, M.D., David A. Kaminskas, M.D.,
Gary A. Hambel, M.D., Mary H. Heintz, M.D., Ravi N. Bathina, M.D.,
Gregory C. Tomlinson, M.D., & Brian T. Lew, M.D.

3000 S. Wayne Ave.
Fort Wayne, IN 46807
(219) 744-2297

7224 Engle Rd.
Fort Wayne, IN 46804
(219) 432-2297

800 Broadway, Suite 204
Fort Wayne, IN 46802
(219) 422-2558

ORTHOPEDIC SURGERY

FRACTURE CARE/TRAUMA
SPORTS MEDICINE
ARTHROSCOPIC SURGERY
JOINT RECONSTRUCTION
SCOLIOSIS
SPINAL SURGERY
SHOULDER SURGERY
HAND SURGERY
FOOT SURGERY
PEDIATRIC ORTHOPAEDICS
ADULT ORTHOPAEDICS



OFFICE ANSWERS DAY & NIGHT

TOLL FREE IN INDIANA (800) 223-3381

DONALD S. BLACKWELL, M.D.
F.R. BRUECKMANN, M.D., F.A.C.S.
ANTHONY R. LASICH, M.D.
WILLIAM O. IRVINE, M.D.
JOSEPH C. RANDOLPH, M.D.
DONALD E. RUSSELL, M.D.
MARK R. STEVENS, M.D.
TERRY R. TRAMMELL, M.D.
ANDREW J. VICAR, M.D.
VINCENT L. FRAGOMENI, M.D.
JOHN K. SCHNEIDER, M.D.
JOSEPH R. BAELE, M.D.
SANFORD S. KUNKEL, M.D.
DAVID A. FISHER, M.D.
HENRY G. STEIN, M.D., F.A.C.S.

Orthopaedic Surgeons

MAIN OFFICE
1801 N. Senate Blvd.
Suite 200

923-5352

Appointment Scheduling 924-2778

WESTLAKE
805 Beachway Dr.

244-9499

DANVILLE
252 Meadow Dr.

745-4525

Major Credit Cards Accepted

CRITICAL CARE

Critical Care Medicine

*Specialists
in the care of
critically ill or
injured patients*

David Powner, MD, FCCP, FCCM

Michael Buran, MD Regis Lagler, MD

Stephen Olvey, MD Daniel J. Polacek, MD



1701 North Senate Boulevard
Indianapolis, IN 46202

**For information
and patient referrals
(317) 929-5293**

After office hours for patient referrals call
929-8551 and page Critical Care Intensivist.

DOCTORS:

This space is available.

For rates, write or call
Indiana Medicine
3935 N. Meridian St.
Indianapolis, IN 46208
(317) 925-7545
1-800-969-7545 in Indiana only

NEUROLOGY

Shirley M. Mueller, M.D.

General Neurology

Pain, Headache &

Diseases of the Autonomic Nervous System Including Dizziness

Testing Available

317-871-6000

Indianapolis

North: St. Vincent's Professional Bldg. #726

South: University Heights Professional Bldg., Suite M

COLON & RECTAL SURGERY

W. M. KENDRICK, M.D.

G. A. DONNALLY, M.D.

R. JAMES WILSON, M.D.

W. E. KELLEY, M.D.

RICHARD L. STOUT, M.D.

PAULA A. HALL, M.D.

*Practice limited to Colonoscopy,
Treatment and Surgery of Rectal Diseases*

Kendrick Memorial Hospital, Inc.

Mooreville, Indiana

Tel: 317-831-9300

1-800-222-7994

(JCAH Accredited)

DOCTORS:

This space is available.

For rates, write or call: INDIANA MEDICINE, 3935 N.
Meridian St., Indianapolis, IN 46208, (317) 925-7545,
1-800-969-7545 in Indiana only.

■physicians' directory

CLINICAL & ANATOMIC PATHOLOGY



ANATOMIC PATHOLOGY/CYTOLOGY

Surgical Pathology
Gynecologic/Respiratory
and Fluid Cytology
Fine Needle Aspiration Biopsy
Performance and Interpretation

LABORATORY AND OFFICE
7430 North Shadeland Ave.
Indianapolis, IN 46250
(317) 841-0133

Edwin E. Pontius, M.D.
Director
Mary L. Forster, M.D.
Ted Bloch, M.D.
G.R. Schwenk Jr., M.D.
Robert J. Swedo, M.D.
Board Certified Pathologists

COURIER SERVICES FOR:
Physician Offices
Ambulatory Surgery Centers
Hospitals

Medicare/Medicaid Approved
(Assignments Accepted)
Blue Shield Preferred Provider
Accept Maxicare, PMA/PHA, etc.

OPHTHALMOLOGY

GARY T. RAFLO
M.D., F.A.C.S.

OPHTHALMIC
PLASTIC AND
RECONSTRUCTIVE
SURGERY



9333 NORTH
MERIDIAN
SUITE 302
INDIANAPOLIS
IN 46260
317 573 9966
800 937 9966

FELLOW AMERICAN COLLEGE OF SURGEONS
AMERICAN SOCIETY OF OPHTHALMIC PLASTIC
AND RECONSTRUCTIVE SURGERY

DIPLOMATE AMERICAN BOARD OF OPHTHALMOLOGY

SURGERY EYELID AND EYEBROW COSMETIC SURGERY
PTOSIS
EYELID AND ORBITAL TUMORS
LACRIMAL DRAINAGE DISORDERS
ORBITAL AND FACIAL TRAUMA
THYROID EYE DISORDERS

OTOLOGY

MERIDIAN OTOLOGY LAB

*Complete Audiometric Evaluations
*Hearing Aid Evaluations and Dispensing
*Brainstem Auditory Evoked Response
*Visual Evoked Response
*Electronystagmography
*Assistive Listening Devices—Demonstrations Available

Richard Kurtz, M.D. Jack Summerlin, M.D.
Marvin R. Kolodny, Ph.D.
Director of Audiology
3266 N. Meridian Street Indianapolis, Indiana
Suite B12 (317) 925-7077

ALCOHOLISM TREATMENT

Indiana's Leading Hospitals Specializing In The Treatment of Alcoholism and Drug Abuse.



- adolescent program
- adult program
- family program
- older adults program
- impaired professionals program
- cocaine program
- outpatient program
- disabled program
- relapse program
- co-dependency program

OUTREACH OFFICES

Bloomington • Fort Wayne • Clarksville • Merrillville • Indianapolis • Marion
South Bend • Greenwood • Kokomo • Lafayette

Michael Chadwick, M.D.
David Gregory, M.D.
Koala Center
2223 Poshard Drive
Columbus, Indiana
(812) 376-1711

John Saalwaechter, M.D.
Koala Adolescent Center
1404 S. State Avenue
Indianapolis, Indiana
(317) 783-4084

Daniel Kubley, M.D.
Koala Center
1800 N. Oak Road
Plymouth, Indiana
(219) 936-3784

Kete Cockrell, M.D.
Koala Center
1711 Lafayette Avenue
Lebanon, Indiana
(317) 482-3711

Indiana Toll-Free • 24-Hour HELPLINE • 1-800-622-4711

ALCOHOLISM TREATMENT

Eugene G. Roach, M.D.
Executive/Medical Director



Anderson Center
of Saint John's
22111 Jackson Street
Anderson, Indiana 46016

1-800-435-9143 or (317) 646-8383

- Comprehensive Alcohol and Drug Treatment
- Separate Programs for Adolescents and Adults
- Free Assessment and Intervention

ALCOHOLISM TREATMENT

Douglas Bullington, M.D.
Program Director



COUNTERPOINT CENTER
at CPC Valle Vista Hospital
898 E. Main Street
Greenwood, IN 46143
317/887-1348

- Free evaluation and intervention
- Adult & Adolescent Treatment Services
- 24 hours-a-day

■physicians' directory

INTERNAL MEDICINE

NEPHROLOGY & INTERNAL MEDICINE, INC.

Thomas Wm Alley M.D. FACP
George W Applegate, M.D.
Richard Bloch, M.D.
Charles B Carter, M.D.
William H Dick, M.D., FACP

Theodore F Hegeman, M.D.
Douglas F Johnstone, M.D.
Wendy L Kindig, M.D.
LeRoy H King Jr, M.D. FACP
Mary A Margolis, M.D.
Tim E Taber, M.D.

**1801 N. Senate Blvd., Suite 355
Indianapolis 46202
Tel: 317-924-8425**

By Physician Referral

Answering Service 926-3466

Clinical Nephrology, Hemodialysis, Peritoneal Dialysis, Renal Transplantation, Metabolic Kidney Stone Disease, Hypertension, Fluid and Electrolyte Imbalance, Critical Care

HEMODIALYSIS

CHRONIC MAINTENANCE OUTPATIENT HEMODIALYSIS

DIALYSIS INSTITUTE OF ANDERSON
2629 Nichol Avenue
Anderson, Indiana 46011
317-649-0772

DIALYSIS INSTITUTE OF BEECH GROVE
3834 South Emerson Avenue
Indianapolis, Indiana 46203
317-787-3171

DIALYSIS INSTITUTE OF KOKOMO
Community Medical Arts Center
3611 South Reed Rd. (31 Bypass)
Kokomo, Indiana 46902
317-453-0606

For further information contact

NEPHROLOGY & INTERNAL MEDICINE, INC.
1801 N. Senate Blvd., Suite #355
Indianapolis, Indiana 46202
317-924-8425

Outpatient renal consultation may be
scheduled at any location.

HAND SURGERY

JOHN C. KLEIN, M.D.

Specializing in the diagnosis and treatment of hand,
wrist, and forearm disorders.

2727 N. Pennsylvania St.
Indianapolis, IN 46205

317-925-1665
Answered 24 hours

Diplomate American Board of Orthopedic Surgery
with certificate of added qualifications in surgery of the hand.

HEMATOLOGY - ONCOLOGY

JOHN A. CAVINS, M.D.

8220 NAAB ROAD, SUITE 105
INDIANAPOLIS, INDIANA 46260
TELEPHONE (317) 876-1036

INDIANAPOLIS SERVING NOBLESVILLE
CARMEL

DERMATOPATHOLOGY

DERMATOPATHOLOGY LABORATORY

Larry J. Buckel, M.D.
Robert M. Hurwitz, M.D.

Howard R. Gray, M.D.
William B. Moores, M.D.



Diplomates of the American Boards
of
Dermatology and Dermatopathology

Specializing in
Inflammatory Skin Diseases
and
Neoplasms of the Skin

9202 North Meridian Street
Suite 215

Approved for and Accept
Medicare and Medicaid
Assignment

Indianapolis, Ind. 46260
(317) 843-2204

UPS Mailers and Courier Service Available

PSYCHIATRY

Eugene G. Roach, M.D.
Executive/Medical Director



Anderson Center

of Saint John's
2211 Jackson Street
Anderson, Indiana 46016

1-800-435-9143 or (317) 646-8114

- Comprehensive Psychiatric Treatment
- Separate Programs for Adolescents, Adults and Older Adults
- Program for Dual Diagnosis

PSYCHIATRY

Davis Psychiatric Clinic, Inc.

1431 North Delaware Street
Indianapolis, Indiana 46202
317/634-9930

Larry M. Davis, M.D.
R. Peter Mohlman, M.D.
Judith L. Campbell, M.D.

Comprehensive Child, Adolescent, Adult Psychiatry
Sexual Therapy, Crisis Intervention
Alcohol and Substance Abuse

PERIPHERAL VASCULAR SURGERY



VASCULAR SURGERY, P.C.

Austin L. Gardner, M.D.
Malcolm B. Herring, M.D.
Daniel R. LeGrand, M.D.
David L. Madison, M.D.
Spencer F. Goodson, M.D.

Vascular
Diagnostics
— *Mobile*
— *Non-invasive*
— *Testing*™

St. Vincent Professional Building
8402 Harcourt Road
Suite 613
Indianapolis, Indiana 46260
Telephone (317) 871-6400
TOLL FREE (800) 662-5367

Carmel Medical Center
13450 North Meridian Street
Suite 160
Carmel, Indiana 46032
Telephone (317) 573-7040
TOLL FREE (800) 446-0298



The Vascular Lab

**NONINVASIVE
VASCULAR TESTING**

The vascular lab offers a full spectrum of diagnostic vascular testing services, including the new addition of color computed sonography, supported by the entire team of:

John F. Ansbro, M.D. • Alan T. Marty, M.D. • Herbert Dan Adams, M.D.
Richard A. Murrell, M.D. • Daniel B. Daniels, M.D.

Cardiovascular Surgery Inc.

350 West Columbia
Suite 350
Evansville, Indiana 47710
812-423-2395

■ physicians' directory

BREAST DISEASES

INDIANA CENTER FOR BREAST DISEASES

DAVID W. PRICE, M.D.

Practice limited to Multidisciplinary Treatment of
BREAST DISEASES

Diagnosis	(317) 872-9580
Consultation	8330 Naab Road, Suite 213
Treatment options	Indianapolis, IN 46260
Preservation surgery	
Long-term followup	Appointment by referral

ABDOMINAL SURGERY

TED W. GRISELL, M.D.

*Providing consultative services
for physicians throughout Indiana
for patients with
complex management problems*

5317 East 16th Street	317-359-8261
Indianapolis 46218	Phone answered 24 hours

DOCTORS:

This space is available.

For rates, write or call
Indiana Medicine
3935 N. Meridian St.
Indianapolis, IN 46208
(317) 925-7545
1-800-969-7545 in Indiana only

PLASTIC SURGERY

GARY T. RAFLO
M.D., F.A.C.S.

OPHTHALMIC
PLASTIC AND
RECONSTRUCTIVE
SURGERY



9333 NORTH
MERIDIAN
SUITE 302
INDIANAPOLIS
IN 46260
317 573 9966
800 937 9966



JOHN G. PANTZER JR., M.D.

Fellow
American College of Surgeons
Diplomate
American Board of Plastic Surgery
1801 North Senate Blvd
Suite 735
Indianapolis, Indiana 46202
Tel: 317-929-5500

ASTHMA & ALLERGY

MARK HOLBREICH, M.D.

**PEDIATRIC AND ADULT
ASTHMA, ALLERGY AND IMMUNOLOGY**

8803 N. Meridian St.
Suite 365
Indianapolis, Indiana
(317) 574-0230

- | | |
|-----------------|---------------------------|
| ○ Asthma | ○ Adverse Food Reactions |
| ○ Chronic Cough | ○ Drug Sensitivity |
| ○ Rhinitis | ○ Stinging Insect Allergy |

ONCOLOGY — HEMATOLOGY

INDIANA ONCOLOGY-HEMATOLOGY CONSULTANTS



ADULT ONCOLOGY HEMATOLOGY

Laurence H. Bates, M.D.
William H. Bond, M.D.
William M. Dugan, M.D.
Redmond P. Hogan, M.D.
Gregory W. Smith, M.D.

PEDIATRIC ONCOLOGY HEMATOLOGY

Deborah S. Provisor, M.D.

1828 N. ILLINOIS
INDIANAPOLIS
INDIANA 46202

PHONE: 317/927-5770
TOLL FREE: 1-800-ONC-HEME
1-800-662-4363

*Located in the Byram Gates Middleton House
Listed on the National Register of Historic Places*

RADIATION ONCOLOGY



Physicians:
ROGER ROBISON
DAVID BELL
TAE CHUNG

Radiation Oncology Services for Southwest Indiana

TERRE HAUTE
Regional Hospital
(812) 234-7756

VINCENNES
Good Samaritan Hospital
(812) 885-3939

ROGER ROBISON, M.D., F.A.C.P.
M.D. Anderson, 1980
Certified: Radiation
Oncology
Medical Oncology

DAVID BELL, M.D., Ph.D.
M.D. Anderson, 1981
Certified: Radiation
Oncology

TAE CHUNG, M.D.
Chicago Hines, V.A., 1976
Certified: Radiation
Oncology

RADIATION ONCOLOGY

TRI-STATE RADIATION ONCOLOGY

Evansville
Cancer Center
Evansville, Indiana
(812) 474-1110



Welborn
Cancer Center
Evansville, Indiana
(812) 426-8373

AL KORBA, M.D.; ALY RAZEK, M.D.;
THOMAS HAYES, M.D.; AMR AREF, M.D.; SHANNON LAMB, M.D.

★ ★ ★ ★ ★

Tri-County Cancer Care Center
Jasper, Indiana
(812) 482-2212

DEV DAS SHETH, M.D.

Tri-County Cancer Care Center
Princeton, Indiana
(812) 386-6663

MOISES DOMINGO, M.D.

★ ★ ★ ★ ★

Olney Cancer Center
Olney, Illinois
(618) 392-3050

MOISES DOMINGO, M.D.

Harrisburg Oncology Associates
Harrisburg, Illinois
(618) 252-5126

MANJU GUPTA, M.D.

★ ★ ★ ★ ★

Radiation Oncology
Owensboro, Kentucky
(502) 926-7228

TRISTAN BRIONES, M.D.

Henderson Cancer Center
Henderson, Kentucky
(502) 827-0255

AMR AREF, M.D.

★ ★ ★ ★ ★

In Indiana 1-800-843-7117
Out of Indiana 1-800-331-9294
24-hour answering service (812) 476-1367

ONCOLOGY

Indiana Regional **Cancer Center**

Science made Human.SM

Medical Oncology And Hematology

L.K. Everson, M.D.

Andrew Ross
Greenspan, M.D.

Shivaji Gunale, M.D.

Keith Logie, M.D.

M.S. Murali, M.D.

Radiation Oncology

Nini Bermudez-Webb, M.D.

Thomas O'Connor, M.D.

Palliative Care

Neil Irick, M.D.



Community Hospitals Indianapolis
(317) 353-4758

PHYSICAL MEDICINE & REHABILITATION

Physician's Back Pain Clinic, P.C.

A medical team approach to musculoskeletal and spinal pain disorders offering physical therapy, therapeutic exercise and manual manipulation.

DIAGNOSTIC ELECTROMYOGRAPHY

- Personal injury • Workman's compensation
- Impairment rating • Disability evaluation

350 WEST COLUMBIA • SUITE 100 • EVANSVILLE, INDIANA 47710 • 812/425-2662

————— *Board Certified* —————

Clint Mallari, M.D. • Laurance Silverman, M.D.
David Wm. Johnson, M.D.

ORTHOPAEDIC SURGERY

JAMES L. KAISER, M.D.



- ORTHOPAEDIC SURGERY
- FRACTURES
- BACK SURGERY
- FOOT SURGERY
- ARTHROSCOPIC SURGERY

Certified American Board
Of Orthopaedic Surgery

5626 East 16th Street
Indianapolis, IN 46218

(317) 352-0176

OFFICE ANSWERS DAY & NIGHT

5626 E 16
82nd & Shadeland
If No Answer Call

352-0176
352-0176
543-6089

DOCTORS:

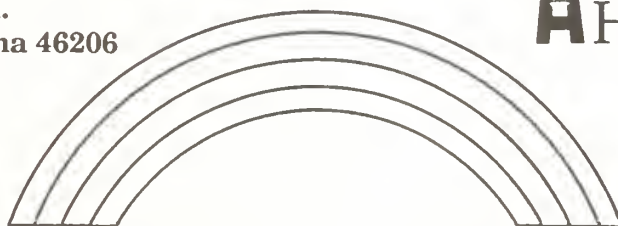
This space is available.

For rates, write or call
Indiana Medicine
3935 N. Meridian St.
Indianapolis, IN 46208
(317) 925-7545
1-800-969-7545 in Indiana only

TRANSPLANTATION

METHODIST TRANSPLANT CENTER

P.O. Box 1367
1701 N. Senate Blvd.
Indianapolis, Indiana 46206



24 - HOUR REFERRAL

(800) 772-7788

HEART TRANSPLANTATION

Surgical Director
Harold Halbrook, M.D.
Program Cardiologist:
Douglas Pitts, M.D.

LUNG TRANSPLANTATION

Surgical Director
Harold Halbrook, M.D.
Program Pulmonologist:
Michael Niemeier, M.D.

KIDNEY TRANSPLANTATION PANCREAS TRANSPLANTATION

Surgical Director
Brian Haag, M.D.
Program Nephrologist:
Charles Carter, M.D.

LIVER TRANSPLANTATION

Surgical Director
Dale A. Rouch, M.D.
Program Gastroenterologists:
Peds - Vanessa Z. Ameen, M.D.
Adult - Brian G. Sperl, M.D.

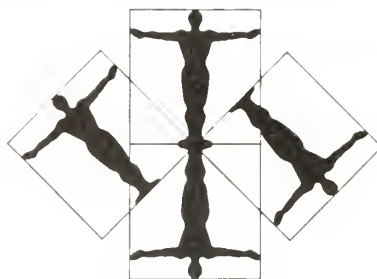
CORNEAL TRANSPLANTATION

Surgical Director
Stephen Johnson, M.D.

TISSUE/BONE BANK

Medical Director
David A. Fisher, M.D.

ORTHOPAEDICS & SPORTS MEDICINE



Hoosier Orthopaedics & Sports Medicine, P.C.

Total Joint Replacement
Athletic Injuries and Sports
Medicine
Arthroscopic Surgery
Pediatric and Adult Orthopaedics
Fracture Care/Trauma

Reconstructive Surgery of the Foot
and Ankle
Reconstructive Surgery of the
Shoulder or Knee
Back Surgery
General Orthopaedics

Robert T. Clayton, M.D.
Robert E. Cravens, M.D.
John E. Garber, M.D.
Robert M. Palmer, M.D.
Stephen B. Sexson, M.D.
Frank B. Throop, M.D.
Thomas F. Trainer, M.D.

Office Answers Day and Night

2020 West 86th Street • Suite 304, Indianapolis, Indiana 46260 (317) 872-3364
8330 Naab Road • Suite 234, Indianapolis, Indiana 46260 (317) 872-3254

OFFICERS

President — George H. Rawls, Indianapolis
 Pres-elect — Michael O. Mellinger, LaGrange
 Immediate Past Pres — Fred W. Dahling, New Haven
 Executive Director — Richard R. King, Indianapolis
 Treasurer — Max M. Wesemann, Franklin
 Asst. Treasurer — John A. Bizal, Evansville
 Speaker — C. Dyke Egnatz, Schererville
 Vice Speaker — William H. Beeson, Indianapolis

EXECUTIVE COMMITTEE

*George H. Rawls, Indianapolis
 Michael O. Mellinger, LaGrange
 Fred W. Dahling, New Haven
 Max M. Wesemann, Franklin
 John A. Bizal, Evansville
 William C. Van Ness II, Summitville
 William E. Cooper, Columbus
 Clarence G. Clarkson, Richmond
 C. Dyke Egnatz, Schererville
 William H. Beeson, Indianapolis

TRUSTEES (Terms end in October)

District

1 — Tom M. Harmon, Evansville (1992)
 2 — Paul J. Wenzler, Bloomington (1990)
 3 — Gordon L. Gutmann, Jeffersonville (1991)
 4 — William E. Cooper, Columbus (1992)
 5 — Fred E. Haggerty, Greencastle (1990)
 6 — Clarence G. Clarkson, Richmond (1991)
 7 — Donna J. Meade, Indianapolis (1992)
 7 — John M. Records, Franklin (1990)
 7 — Peter L. Winters, Indianapolis (1991)
 *8 — Wm. C. Van Ness, Summitville (1990)
 9 — R. Adrian Lanning, Noblesville (1991)
 10 — Nicholas L. Polite, Hammond (1992)
 11 — Jack W. Higgins, Kokomo (1990)
 12 — John R. Thomas, Fort Wayne (1991)
 13 — Alfred C. Cox, South Bend (1992)
 RMS — John H. Fallon, Indianapolis (1990)
 MSS — Todd Rumsey (1990)

*Chairman

ALTERNATE TRUSTEES (Terms end in October)

District

1 — Bruce W. Romick, Evansville (1991)
 2 — Jerome E. Melchor, Vincennes (1992)
 3 — Richard P. Gardner, New Albany (1992)

4 — George L. Alcorn, Madison (1991)
 5 — Roland M. Kohr, Terre Haute (1991)
 6 — Ray A. Haas, Greentield (1992)
 7 — Ronald G. Blankenbaker, Indianapolis (1991)
 7 — Willis W. Stogsdill, Indianapolis (1991)
 7 — Charles O. McCormick III, Greenwood (1991)
 8 — John V. Osborne, Muncie (1991)
 9 — Stephen D. Tharp, Frankfort (1992)
 10 — Frank M. Sturdevant, Valparaiso (1991)
 11 — Laurence K. Musselman, Marion (1992)
 12 — Charles M. Frankhouser, Fort Wayne (1992)
 13 — Richard J. Houck, Michigan City (1991)
 RMS — Lynn L. Witty, Anderson (1990)
 MSS — Carla Brumbaugh, Indianapolis (1990)

AMA DELGATES (Terms end Dec. 31)

Marvin E. Priddy, Fort Wayne (1991)
 Peter R. Petrich, Attica (1991)
 Herbert Khalouf, Marion (1991)
 John A. Knot, Lafayette (1990)
 Alvin J. Haley, Carmel (1990)
 George T. Lukemeyer, Indianapolis (1990)

AMA ALTERNATE DELEGATES (Terms end Dec. 31)

John D. MacDougall, Beech Grove (1991)
 William C. Van Ness II, Summitville (1991)
 Richard L. Reedy, Yorktown (1991)
 Shirley Thompson Khalouf, Marion (1990)
 Max N. Hoffman, Covington (1990)
 Edward L. Langston, Indianapolis (1990)

DISTRICT OFFICERS AND MEETINGS

1 — Pres. Taft W. Roe, Evansville
 Secy. Richard T. Tibbals, Evansville
 Annual Meeting, 1990
 2 — Pres. Betty J. Dukes, Dugger
 Secy. Steve Du Pre, Sullivan
 Annual Meeting, 1990
 3 — Pres. Richard P. Gardner, New Albany
 Secy. C. M. Hocker, New Albany
 Annual Meeting, May 9, 1990
 4 — Pres. Howard C. Jackson, Madison
 Secy. Warren R. Rucker, Madison
 Annual Meeting, May 2, 1990
 5 — Pres. Roland M. Kohr, Terre Haute
 Secy. Peggy Sankey-Swain, Rockville
 Annual Meeting, Sept. 27, 1990
 6 — Pres. Daniel P. Rains, New Castle
 Secy. Dennis L. Roberts, Shelbyville

Annual Meeting, May 9, 1990
 7 — Pres. George A. Donnally, Mooresville
 Secy. H. Marshall Trusler, Greentield
 Annual Meeting, 1990
 8 — Pres. Susan K. Pyle, Union City
 Secy. Jerome M. Leahey, Union City
 Annual Meeting, June 6, 1990
 9 — Pres. Peter R. Petrich, Attica
 Secy. R. Adrian Lanning, Noblesville
 Annual Meeting, June 13, 1990
 10 — Pres. Thomas A. Brubaker, Munster
 Secy. Barron M. Palmer, Hammond
 Annual Meeting, June 20, 1990
 11 — Pres. James E. Duncan, LaFontaine
 Secy. Fred C. Pochler, La Fontaine
 Annual Meeting, Sept. 19, 1990
 12 — Pres. Mark S. Souder, Auburn
 Secy. John A. Egli, Topeka
 Annual Meeting, Sept. 20, 1990
 13 — Pres. Thomas J. Eberts, South Bend
 Secy. John W. Schurz, South Bend
 Annual Meeting, Sept. 12, 1990

COMMISSION CHAIRMEN

Constitution and Bylaws
 Helen E. Czenkusch, Indianapolis
Legislation
 Eugene G. Roach, Anderson
Physician Assistance
 Dolores Burant, Elkhart
Medical Services
 Dallas E. Coate, Lebanon
Medical Education
 James E. Carter, Indianapolis
Sports Medicine
 Ronald G. Blankenbaker, Indianapolis

COMMITTEE CHAIRMEN

Medical Malpractice (Ad Hoc)
 George T. Lukemeyer, Indianapolis
Grievance
 G. Beach Gattman, Elkhart
Future Planning
 Alvin J. Haley, Indianapolis
Indiana Medical Foundation
 Frank B. Ramsey, Indianapolis

CHAIRMEN OF ISMA SPECIALTY SECTIONS

ALLERGY
 Paul D. Isenberg, Indianapolis
ANESTHESIOLOGY
 Stephen F. Dierdorf, Indianapolis
CUTANEOUS MEDICINE
 Peter L. Winters, Indianapolis
DIRECTORS MEDICAL EDUCATION
 Stephen Jay, Indianapolis
EMERGENCY MEDICINE
 Thomas C. Madden, Greenwood
FAMILY PRACTICE
 Dallas E. Coate, Lebanon
INTERNAL MEDICINE
 Paul T. Batties, Indianapolis
MEDICAL DIRECTORS AND STAFF PHYSICIANS OF NURSING FACILITIES
 Hugh K. Thatcher, Indianapolis
NEUROLOGICAL SURGERY
 Marvin R. Bernard, Merrillville
NEUROLOGY
 Charles A. Bonsett, Indianapolis
NUCLEAR MEDICINE
 Mike Mullinix, Indianapolis

OBSTETRICS & GYNECOLOGY
 Philip N. Eskew Jr., Carmel
OPHTHALMOLOGY
 D. Dean Coheld, Bloomington
ORTHOPEDIC SURGERY
 James G. Buchholz, Fort Wayne
OTOLARYNGOLOGY, HEAD & NECK SURGERY
 William F. Cooper, Columbus
PATHOLOGY & FORENSIC MEDICINE
 Arthur C. Jay, Columbus
PEDIATRICS
 Michael A. Hogan, Indianapolis
PHYSICAL MEDICINE AND REHABILITATION
 Arden Pletzer, Anderson
PREVENTIVE MEDICINE AND PUBLIC HEALTH
 Gary A. Babcoke, Chesterton
PSYCHIATRY
 Patricia Sharpley, Indianapolis
RADIOLOGY
 Daniel R. Elliott, Indianapolis
SURGERY
 Ted W. Grisell, Indianapolis
UROLOGY
 Earl H. Johnson, Indianapolis

ISMA KEY STAFF

Richard R. King, Executive Director
 Michael Huntley, Director of Member Services
 John Wilson, Director of Finance, Resident Medical Society
 Adele Lash, Director of Communications
 Mike Abrams, Interim Director of Government Relations
 Ronald Dyer, General Counsel
 Richard Ryan, Field Services
 Bob Sullivan, Field Services
 Janna Kosinski, Field Services
 Dana Wallace, Computer Services
 Susan Grant, Executive Assistant
 Mary Alice Cary, Executive Assistant
 Rosanna Iler, Membership, Auxiliary, Students
 Tom Martens, Members Health Insurance, CME Coordinator
 Carolyn Downing, Specialty Society Services
 Tina Sims, INDIANA MEDICINE

■ news briefs

Hand conference set

Donald C. Ferlic, M.D., will speak March 19 at the Monday Night Hand Conference sponsored by the Indiana Center for Surgery and Rehabilitation of the Hand and Upper Extremity in Indianapolis.

Dr. Ferlic, clinical assistant professor of orthopaedic surgery at the University of Colorado Health Science Center, will speak on "Rheumatoid Arthritis of the Hand and Wrist" at 7 p.m. at the hand center, 8501 Harcourt Road.

The monthly conferences are presented as continuing education for practicing physicians, hand fellows, orthopaedic residents, hand therapists and others interested in surgery of the hand and upper extremity.

For information, call Beth Bush, (317) 875-9105.

Oncology center dedicated

The Walther Oncology Center, located in the Medical Research and Library Building at the Indiana University Medical Center, was dedicated Jan. 31.

The center is the principal basic science research arm of the Walther Cancer Institute, an Indianapolis-based organization founded in 1985 with the ambition to develop world-class cancer research and treatment programs.

Hal E. Broxmeyer, Ph.D., scientific director of the center, said the ability to recruit high-caliber research scientists is possible through the joint efforts of the Walther Oncology Center and the I.U. School of Medicine.

Currently, 38 scientists with expertise in molecular and cell biology are fully or partially supported by the oncology center.

The center is helping to support investigators in the departments

of medicine (sections of hematology/oncology and endocrinology), microbiology and immunology, medical genetics, pediatrics and experimental oncology.

AIDS broadcast slated

The Physicians Association for AIDS Care (PAAC) will broadcast 25 hours of coverage from the Sixth International AIDS Conference in San Francisco June 21 through 23.

The telecast will be provided via the AIDS Satellite Television Network through satellite downlinks to the United States, Canada, Brazil, Dominican Republic, France and Germany.

If you are interested in enrolling for the public service telecast from San Francisco or want information on subscription programs on the AIDS Satellite Television Network, call PAAC at (312) 222-1326.

April 15 deadline for 1989 IRA contributions

April 15 is the deadline for 1989 tax year contributions to ISMA's IRA, a retirement savings plan operational since 1982 through American Physicians Life (APL).

Tax year contributions for 1989 to the IRA will earn 8.5% interest on a tax-deferred basis. This 8.5% crediting rate applies to new deposits, rollovers and existing ISMA/IRA participants' entire accounts' values.

The ISMA/IRA has a minimal transaction fee (up to a maximum of \$30) for withdrawals made before age 59 $\frac{1}{2}$. No fee is charged for withdrawals after that age.

For additional information about ISMA's individual retirement account, call APL, 1-800-742-1275.

Free booklets offered

Free patient education booklets titled *Your Number Counts: A Guide to Controlling Your Cholesterol* are available from the Niacin Information Center.

This booklet provides guidelines appropriate for patients with mildly elevated cholesterol levels and those receiving medical treatment. It contains diet information and a low-fat meal plan and provides space to record lab values, medication prescriptions and additional doctors' instructions.

Booklets are free in any quantity to health professionals. To order, call 1-800-NIACIN-1.

Booklet discusses platelets

Single Donor Platelets: A Roundtable Discussion is available from the Component Therapy Information Bureau.

The booklet contains highlights from an industry experts' discussion on the collection and use of single donor apheresis platelets for the treatment of patients with low platelet counts or abnormalities of platelet function.

For a free copy, write Component Therapy Information Bureau, P.O. Box 620, Deerfield, IL 60015 or call (708) 940-6400.

NIH report available

A National Institutes of Health (NIH) consensus development statement on Oral Complications of Cancer Therapies: Diagnosis, Prevention and Treatment is available from the NIH Office of Medical Applications of Research.

Free, single copies are available from William H. Hall, Director of Communications, Office of Medical Applications of Research, National Institutes of Health, Building 1, Room 259, Bethesda, MD 20892. ┘

Henry W. Eggers, M.D.

Dr. Eggers, 85, Munster, a founding member of the American College of Obstetricians and Gynecologists, died Dec. 22 at Community Hospital in Munster.

He was a 1931 graduate of the University of Illinois Medical School and the recipient of the ISMA Physician Community Service Award in 1974. He served on the Hammond school board 26 years. Henry W. Eggers Middle School was named in his honor during his final year in office.

Dr. Eggers was a past president of St. Margaret Hospital's medical staff and the Lake County Medical Society and a former ISMA delegate. He retired in 1977 after practicing 47 years.

Thomas A. Fedor, M.D.

Dr. Fedor, 59, a West Lafayette psychiatrist, died Dec. 30 at Doctors' West Hospital in Columbus, Ohio.

He received his medical degree from Tulane University in 1956.

Dr. Fedor was a past medical director for the Center for Mental Health in Anderson and a staff psychiatrist at Wabash Valley Hospital in Lafayette.

John C. Glackman, M.D.

Dr. Glackman, 76, a retired general practitioner, died Dec. 26 at his Rockport home.

He was a 1938 graduate of the Indiana University School of Medicine and served as a physician with the Army during World War II. He was a past president,

secretary and delegate of the Spencer County Medical Society.

Dr. Glackman retired in 1988 after 52 years of practice. He was a member of the ISMA Fifty Year Club.

Dorothy H. Hubler-Miodus, M.D.

Dr. Hubler-Miodus, 74, a retired physician, died Dec. 1 in her Evansville home.

She was a pharmacist before becoming a physician and worked for Johnson & Johnson during World War II.

Dr. Hubler-Miodus was a member of the Vanderburgh County Medical Society and the Indiana Medical Political Action Committee.

Russell W. Lamb, M.D.

Dr. Lamb, 83, a retired Indianapolis surgeon specializing in industrial medicine and surgery, died Dec. 23.

He was a 1933 graduate of the Indiana University School of Medicine and practiced at Gorgas Hospital in the Canal Zone and a hospital operated by the British Oil Co. in South America.

Dr. Lamb began his private practice in Indianapolis in 1941 and retired in 1978. He was named Man of the Year in 1967 by the Murat Shrine, where he served as medical director.

Benjamin V. Roberto, M.D.

Dr. Roberto, 57, a long-time Scottsburg physician, died Nov. 30 at the Columbus Hospital in

Chicago.

He was a 1958 graduate of the University of Santo Tomas in Manila and practiced in Scott County for nearly 20 years.

Dr. Roberto was a former delegate and secretary of the Scott County Medical Society.

Maurice G. Schulhof, M.D.

Dr. Schulhof, 82, a retired surgeon and founder of The Muncie Clinic, died Dec. 25 at Ball Memorial Hospital in Muncie.

He was a 1931 graduate of Northwestern University Medical School and a fellow in surgery at the Mayo Clinic. He was an Air Force veteran of World War II and a member of the Ball Memorial Hospital medical staff more than 50 years.

Dr. Schulhof was a member of the ISMA Fifty Year Club, the Blackford County Medical Society and the James Priestly Society, a select group of Mayo fellows. He also was one of the first physicians in Indiana to use sulfa medication and intravenous anesthesia.

Milton E. Tomak, M.D.

Dr. Tomak, 79, a Linton general practitioner for 45 years, died Dec. 27 at his home in Fairfax, Va.

He was a graduate of the Indiana University School of Medicine and an Army veteran of World War II.

Dr. Tomak was a former chief of staff at Greene County Hospital and a member of the ISMA Fifty Year Club. □

Dr. Mark H. Grimm of Pulmonary Associates of Indianapolis has been named a fellow of the American College of Chest Physicians.

Dr. F. R. Brueckmann of Indianapolis is the author of the book *The Art of Effective Fracture Fixation with Rush Pins*, published this year by Thieme Medical Publishers, New York, N.Y., and Stuttgart, Germany.

Dr. Peter H. Cahn has announced the association of **Dr. Elaine G. Hathaway** with his ophthalmology practice at 9002 N. Meridian St., Indianapolis.

Dr. Richard D. Zeph of Carmel spoke on auricular reconstruction and moderated the aesthetic surgery section of the facial plastic surgery seminar sponsored by the Indiana University School of Medicine, Department of Otolaryngology-Head and Neck Surgery.

Dr. Randolph W. Lievertz of Indianapolis presented grand rounds at St. Joseph Medical Center in Fort Wayne; his topic was "Advances in the Management of the Complications of Menopause." He presented grand rounds on "Estrogens, Lipids and Bone Loss" at the Michigan Health Center Hospital in Detroit, Mich.

Dr. Peter G. Garrett of Indianapolis presented a paper titled "Adjuvant Postoperative Radiation for Cancer of the Endometrium" at the annual meeting of the Indiana Radiation Therapy Association; the co-authors were **Dr. Newell O. Pugh**, **Dr. David B. Ross** and **Dr. William R. Rate**, all of Indianapolis.

Dr. Hans Wilbrandt of Indianapolis spoke on "Endocapsular Phacoemulsification and Capsulorhexis" at the small incision phaco course held in Dearborn,

Physician Recognition Award recipients

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Balamohan, Ramalingam, Bluffton
Bentz, John M., Bluffton
Bloch, Ted, Indianapolis
Brown, Michael R., Terre Haute
Guha, Durga D., Clinton
Hansell, Richard S., Indianapolis
Heidingsfelder, John A., Evansville
Helmuth, Robin A., Indianapolis
Jeevan, Raj, Terre Haute

Jeha, Mikhail F., Valparaiso
Korba, Alvin, Evansville
Raves, Joseph L., Princeton
Razek, Aly A., Evansville
Reising, Gabriel E., Muncie
Sekar, Thomandram S., Bluffton
Steury, Clinton D., Bluffton
Waksman, Alberto, Bluffton
Wilson, Fred M., Carmel
Zehr, Brian P., Fort Wayne

Mich. He presented lectures on "Advanced Phacoemulsification Intercapsular Techniques" and "Mini-Capsulorhexis for Intercapsular Phacoemulsification Assures Intraocular Lens Centration" at the Gills Eye Meeting in Tarpon Springs, Fla.

Dr. Patricia Keener, community and general pediatrics director at Wishard Memorial Hospital in Indianapolis, has received the Ross Education Award from the American Academy of Pediatrics; she received the award for establishing the Safe Sitter program, which teaches adolescents to respond responsibly and effectively to medical problems that may arise during baby sitting jobs.

Dr. Donald L. Martin of Salem received the city's 1989 Urban Beautification Award for improvements made to his office property.

Dr. Thomas C. Thornberry was elected chief of staff at Major Hospital in Shelbyville; **Dr. James L. Peters** is vice chief of staff and **Dr.**

Michael D. Newman is the secretary.

Dr. Owen A. Batterton of Bloomfield was named chief of staff at Greene County General Hospital; **Dr. Lau Tran** of Lyons was named vice chief of staff.

Dr. William R. Rhyneson of Fortville attended a medical conference on "The Treatment of Obesity, a Multi-disciplinary Approach" sponsored by the Harvard University Medical School.

Dr. David H. Jones of Charlestown was named to a three-year term on the Clark County Board of Health.

Dr. Otis R. Bowen, former Health and Human Services Secretary and a resident of Bremen, received the Indiana Hospital Association 1989 Award of Merit; the award recognizes individuals from Indiana who have performed significant service to the hospital field in Indiana or the nation.

Dr. David J. Need was elected

president of the medical staff at St. Francis Hospital Center in Beech Grove; **Dr. Bryan T. Burney** is vice-president and president-elect, and **Dr. Paul S. Strange** is the secretary-treasurer.

Dr. Constantine G. Panos, a Bluffton family practitioner, retired Dec. 14.

Dr. Thomandram S. Sekar of Bluffton has been accredited as a clinical polysomnographer by the American Sleep Disorders Association.

Dr. Timothy L. Hobbs was elected president of the medical staff at Community Hospital in Anderson; other officers are **Dr. Henry D. Covelli**, chief of staff; **Dr. Joseph P. Porcaro**, vice-president; **Dr. John A. Moss**, secretary-treasurer; and **Drs. William J. Bowen** and **Kenneth A. Shaver**, members at large.

Dr. David W. Haines of Warsaw completed training on the nature and diagnosis of chemical dependency at Hazelden in Minnesota.

Dr. R. Kenneth Spear, an Evansville pulmonologist, was named medical director of the ventilator independence program at Tri-State Regional Rehabilitation Hospital.

Dr. Howard C. Deitsch, chief of staff at Reid Memorial Hospital in Richmond, received the Paul S. Rhoads Award for his lecture, titled "Do Not Resuscitate: Ethical Considerations."

Dr. Ronald G. Blankenbaker, an Indianapolis family practitioner, was named a board member

of the American Diabetes Association, Greater Indianapolis Chapter.

Dr. Mary E. Tisserand of Evansville was certified as a diplomate of the American Board of Dermatology.

Dr. Richard E. Nallinger was elected president of the King's Daughters' Hospital in Madison; other officers are **Dr. Patrick W. Stack**, vice-president, and **Dr. Alan P. Culbreth**, secretary-treasurer.

Dr. Robert R. Nelson has been named service director in the adult addictions unit at Charter Hospital in South Bend.

Dr. Gerald R. Nolan, a family practitioner, was named to the newly created position of vice-president of medical affairs at St. Joseph Medical Center in Fort Wayne.

St. Francis Hospital Center in Beech Grove recently honored seven physicians for outstanding service as members of the hospital's medical staff. They are: **Dr. Marvin C. Christie**, family practice; **Dr. Francis A. Ferry**, family practice; **Dr. Morgan E. Greene**, pulmonary medicine; **Dr. Alfons D. Landwehr**, pulmonary medicine; **Dr. Robert J. Madden**, anesthesiology; and **Dr. Dennis J. Nicholas**, anesthesiology. The late **Dr. Arvine J. Popplewell**, a pulmonologist, also was honored.

Dr. James P. Poirier, a Loo-gootee general practitioner, was elected chief of staff at Memorial Hospital and Health Care Center in Jasper. □

New ISMA members

Robert Altman, M.D., South Bend, allergy.

Richard W. Boersma, M.D., Connersville, emergency medicine.

Francoise M. Dion, M.D., Granger, radiology.

Don H. Dumont, M.D., Munster, internal medicine.

Gerard I. Duprat Jr., M.D., Granger, radiology.

Linda N. Figen, M.D., Bloomington, psychiatry.

Terry M. Gaff, M.D., Albion, family practice.

James A. Harris, M.D., Indianapolis, internal medicine.

Michael L. Jackson, Bloomington, emergency medicine.

Larry C. Lawrence, M.D., Bloomington, psychiatry.

Bharati V. Patel, M.D., Hobart, anesthesiology.

Sheree L. Peglow, M.D., Munster, internal medicine.

Paul J. Petrozzo, M.D., Crown Point, nuclear medicine.

John D. Stull, M.D., Evansville, pediatrics.

Suzanne C. Swanson, M.D., South Bend, obstetrics and gynecology.

Sunday Uwagie-Ero, M.D., Gary, orthopedic surgery.

Richard D. Zak, M.D., Munster, ophthalmology.

Residents

Fred W. Caudill, M.D., Jeffersonville, psychiatry.

Mary C. Weber, M.D., Indianapolis, psychiatry. □

■classifieds

GREAT LAKES LOCALE – OB/GYN to join multi-specialty group in popular lakeside community. Competitive compensation and professional liability. Modern facility adjacent to 200-bed hospital. Professional physician and support staff and state-of-the-art diagnostic services. Contact: Barbara Fahl, Administrator, LakeShare Medical Center, 1507 Wabash St., Michigan City, IN 46360, (219) 873-3030.

PRIMARY CARE PHYSICIAN – Marshfield Clinic is seeking a primary care physician to join its expanding seven-member emergency medicine department. Emergency medicine, urgent and ambulatory care, plus supervision and training of ER staff contribute to a very stimulating practice environment. More than 26,000 ER visits and 13,000 ambulatory care visits annually. Specialists representing all branches of medicine and surgery provide support care and services. Marshfield Clinic is a private group practice consisting of 350 physicians and is physically adjacent to St. Joseph's Hospital, a 525-bed acute care teaching facility. Send curriculum vitae to: John P. Falz, Assistant Director, Marshfield Clinic, 1000 N. Oak Ave., Marshfield, WI 54449 or call collect at (715) 387-5181.

FOR SALE – Top quality examination table. Excellent condition. Doctor retiring. \$800 or best offer. (317) 872-3599.

BOARD-CERTIFIED family practice physician wanted for busy northside Indianapolis practice. Competitive salary, bonus. Send CV and references to: P.O. Box 80433, Box 286, Indianapolis, IN 46280.

NORTH DAKOTA – A busy and varied urology practice can be anticipated with this 36-physician multi-specialty group. Two hospitals in city of 35,000. Guarantee and excellent benefit package with

signing bonus. Call or write George Ivekich, 250 Regency Ct., Waukesha, WI 53186, 1-800-338-7107. No costs or obligations involved.

PRACTICE FOR SALE – Busy, well-established family practice for sale. South central Indiana location. Space and business easily supports one- or two-physician practice. Office space available for purchase or lease. Well-equipped, modern 250+ bed hospital facility. Community offers high-quality lifestyle with exceptional recreational opportunities, fine school system and excellent cultural activities. Conveniently located to major metropolitan areas of Louisville, Indianapolis and Cincinnati. Don't miss this opportunity to step right into an ongoing practice. Terms available. For more information, contact: David A. Rogers, Professional Economics, Inc., 1633 N. Capital, Suite 105, Indianapolis, IN 46202, (317) 925-7606.

STAFF PHYSICIAN – Opening available for physician interested in providing primary outpatient medical care for college students and limited care for employees with job-related injuries. Responsibilities: counsel students about healthy lifestyle options; rotate night/week-end calls with other physicians providing medical care for students confined to the inpatient facility. Opportunity for sports medicine involvement. Participate in the collegiate community and maintain liaison with local physicians. M.D. degree and Indiana license required. Several years' experience in primary care preferred. Competitive salary, 40-hour work week and excellent fringe benefits, including five weeks vacation, CME allowance, insurance and retirement programs. This may be either a 10- or 12-month position. Send letter of application and vitae to: Dr. Dan Mikesell, Dean of Students, Ball State Univer-

sity, Muncie, IN 47306. Have three people send original letters of recommendation. Review of applications begins immediately and continues until the position is filled. Applications are actively sought from women and minorities. Ball State University practices equal opportunity in education and employment.

MICHIGAN CITY, IND. – Seeking full-time and part-time emergency physicians for 99-bed, low volume, hospital emergency department within one-hour drive of Chicago. Excellent compensation, paid malpractice and full benefit package to full-time staff. Opportunity for advancement. Contact Emergency Consultants, Inc., 2240 S. Airport Rd., Room 20, Traverse City, MI 49684, 1-800-253-1795 or, in Michigan, 1-800-632-3496.

FULL-TIME PEDIATRICIAN needed to work as an independent contractor at Grissom AFB. Outpatient clinic is open Monday-Friday from 8 a.m. to 5 p.m. Patients are scheduled in advance at 15-minute intervals. Spectrum provides you with a LPN and handles all billing. You will be reimbursed a guaranteed rate with the potential of monthly average. Yearly CME allowances, low-cost occurrence malpractice insurance and relocation assistance. Contact Ben Harten, Spectrum Emergency Care, P.O. Box 27352, St. Louis, MO 63141, 1-800-325-3982, ext. 3004.

FAMILY PHYSICIAN and general surgeon sought for lovely growing northeast Indiana town. Join existing practices or enjoy sala with coverage. Forty miles from major city, this community offers both rural and city advantages. Excellent income guarantee and benefits, progressive modern hospital with young medical staff and low malpractice. Contact, in confidence, Cheryl Braderick, (508) 688-9063, collect. E.G. Todd is a physician search firm, with opportunities

nationwide in all specialties. All inquiries confidential. Fees paid by clients, not physician candidates.

MICHIGAN – Ann Arbor suburb. Are you a family practitioner or an internist with some interest in pediatrics? Be an independent practitioner with the benefits of belonging to a group-managed practice. On call 1:3. First-year income guarantee and benefits including paid malpractice premium. For more information about these opportunities and others, call: Marion Novack, Senior Associate, E.G. Todd Associates, 535 Fifth Ave., New York, NY 10017, (212) 599-6200, collect, or 1-800-221-4762. Confidentiality respected.

BOARD-CERTIFIED PODIATRIST seeking to share part-time office space within 60 miles of Indianapolis area. General or family practitioner preferred. Contact: Robert S. Mandresh, D.P.M., 3764 N. Meridian, Indianapolis, IN 46208.

FOR SALE – 1988 M-B 560SL, smoke silver metallic, burgundy leather hard and black soft tops, 780 miles. (317) 253-7280 evenings.

INTERNIST/FAMILY PRACTICE – Available July 1990. Accredited ambulatory care facility provides medical services to student clientele. Full-time, 11-month position. Competitive salary/benefit package and 40-hour week. Qualifications: M.D./D.O. degree, ability to obtain Illinois license, current DEA registration and board eligible/certified. Search continued until position filled. Contact Glenn Weiss, Medical Director, Student Health Service, Illinois State University, Normal, IL 61761, (309) 438-8655. Women and minorities are encouraged to apply. Affirmative Action/Equal Opportunity Employer.

FAMILY PHYSICIAN wanted to join two-man group in northeast Indiana. Salary guarantee plus opportunity for additional income. Con-

tact Paul D. Steenburg, M.D., 165 W. Water St., Berne, IN 46711, (219) 589-8070 daytime or (219) 368-7431 evenings.

CARDIOLOGIST – Developing second group of cardiologists for 50,000+ Kentucky city. Private hospital will provide beautiful office space, income guarantee and other benefits. The community offers four colleges, a Midwestern atmosphere and a host of family activities including indoor ice arena, symphony orchestra and excellent golf. Call Dawn O'Steen at 1-800-526-3644 or write E. G. Todd Associates, 3475 Lenox Road, Suite 435, Atlanta, GA 30326.

INTERNIST FOR NEBRASKA – A growing regional medical center in Nebraska seeks an internist to complement a group of highly qualified peers. Modern, progressive hospital will purchase equipment as needed. Competitive compensation package includes malpractice. Regional community for recreation, culture and shopping. Call Gwyneth Anderson at 1-800-221-4762 or write E. G. Todd Associates, 535 Fifth Ave., Suite 1100, New York, NY 10017.

REGIONAL ORTHOPAEDIC PRACTICES – Lucrative orthopaedic practices available with several Midwestern regional medical centers. Unique opportunities with highly competitive start-up compensation packages that include income guarantees, paid malpractice and moving allowance along with additional desirable benefits. These are modern facilities with excellent peer association and up-to-date surgical equipment. Several locations available! Call Gwyneth Anderson at 1-800-221-4762 or write E.G. Todd Associates, 535 Fifth Ave., Suite 1100, New York, NY 10017.

POSITION AVAILABLE with thriving three-clinic urgency care corpora-

tion. Practice heavily emphasizing industrial, sports medicine and wellness programs. Regular work week, no call. Assistant medical director available. Salary and benefits in six figures. Contact Dr. Dean Elzey, (219) 489-2772.

FOR RENT – Naples, Fla. Week minimum. Condominium near Ritz Carlton with one bedroom plus sofa sleeper. Bayside view, one block to ocean. Rooftop swimming pool, other amenities. Call for mailing. (317) 231-7253 days; (317) 842-6655 or (317) 823-0577 evenings.

EMERGENCY MEDICINE – Terre Haute, Ind. Local group seeking full-time career-oriented emergency physician for position in small community hospital. Flexible scheduling, very competitive compensation package. Send CV or contact William R. Grannen, Priority Health Care, P.C., 7179 Lamplite Ct., Cincinnati, OH 45244, (513) 231-0922.

INDIANAPOLIS, IND. – MetroHealth, a division of Methodist Hospital, is seeking board-certified or board-eligible physicians for the departments of family practice, internal medicine and obstetrics/gynecology. We are an established multispecialty physician group offering an attractive compensation package and professional liability. Please contact: Joyce Irwin, Human Resources, MetroHealth, P.O. Box 1367, Indianapolis, IN 46206, (317) 929-2721.

EMERGENCY PHYSICIANS WANTED – For Fayette Memorial Hospital in Connersville, Ind. Will consider all physicians with emergency medicine experience. 15,000 visits/year. Fee-for-service group does its own billing. Hourly compensation based on training, experience and qualifications. Excellent fringe benefit package includes, life, health, disability and malpractice insurance plus CME allowance,

ACEP and ISMA dues, pension plan and potential bonus. Contact: Michael D. Bishop, M.D., FACEP, Emergency Care Physicians, 640 S. Walker St., Suite A, Bloomington, IN 47403, (812) 333-2731.

FAMILY PRACTICE – Hospital-sponsored clinic opportunity. Dynamic, growth-oriented hospital in beautiful north central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit pack-

age that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435, (612) 835-5123.

FAMILY PHYSICIAN, general practitioner or internist wanted to join three-man group in west central Indiana. Competitive salary and percentage arrangement. Partnership arrangement possible after

one year. Contact Frank Swaim, M.D., Parke Clinic, 503 Anderson St., Rockville, IN 47872, (317) 569-3182.

CENTRAL INDIANA – Physician-owned emergency group accepting applications for full-time, career-oriented emergency physicians. Flexible work schedules and excellent benefit package. Part-time and directorship positions also available. Send CV or contact Sherry Bussel, Midwest Medical Management, Inc., 528 Turtle Creek, N. Drive, Suite F-4, Indianapolis, IN 46227, (317) 783-7474. □

**AIM
HIGH**

BE AN AIR FORCE PHYSICIAN.

Become the dedicated physician you want to be while serving your country in today's Air Force. Discover the tremendous benefits of Air Force medicine. Talk to an Air Force medical program manager about the quality lifestyle and benefits you enjoy as an Air Force professional, along with:

- 30 days vacation with pay per year
- Dedicated, professional staff
- Non-contributing retirement plan if qualified

Today's Air Force offers the medical environment you seek. Find out how to qualify. Call

USAF HEALTH PROFESSIONS

317-848-5830

COLLECT





If you recognize
Tad's father, you'll
recognize the
name of one
of the largest life
insurance companies
in America.

Lincoln. It's a name
you'll remember.

Benefits available to members of the Indiana State Medical Association and their employees through expanded ISMA group sponsored Lincoln National Life health insurance coverage:

MEDICAL PLAN 1

- 365 Days of Inpatient Hospital Care
- 100% payment semi-private or hospital ward room including the cost of blood
- 365 Days In-Hospital Medical Care
- Reasonable and Customary allowances for surgery, maternity, general anesthesia, medical visits, and radiation therapy
- \$500 Supplemental Accident
- Unlimited Major Medical Benefits

MEDICAL PLAN 2

- Comprehensive Major Medical expense protection — \$500 Calendar Year Deductible
- Unlimited Maximum Benefits

MEDICAL PLAN 3

- Comprehensive Major Medical expense protection — \$250 Calendar Year Deductible
- Unlimited Maximum Benefits

MEDICAL PLAN 4

- Low cost comprehensive Major Medical expense protection — \$2,000 Calendar Year Deductible
- Unlimited Maximum Benefits

MEDICAL PLAN 5

- Comprehensive Major Medical expense protection — \$250 Calendar Year Deductible
- Includes cost-containment features
- Unlimited Maximum Benefits

MEDICAL PLAN 6

- Comprehensive Major Medical expense protection — \$100 Calendar Year Deductible
- Includes cost-containment features
- Unlimited Maximum Benefits

MEDICAL PLAN 7

- Economical Comprehensive Major Medical expense protection — \$1,000 Calendar Year Deductible
- Unlimited Maximum Benefits

DENTAL PLAN

- Reasonable and Customary allowances for necessary care and treatment for dental health
- \$1,500 Maximum Dental Benefit per person in a Calendar Year

MEDICAL REIMBURSEMENT PLAN

- Tax Deductible to the professional corporation

The Lincoln National Life Insurance Company is most pleased to be underwriting the Group Medical and Dental Program for the Indiana State Medical Association. Your benefit programs have been designed to provide the highest quality coverage and service at the lowest possible cost. A special claim paying unit has been established in our Fort Wayne Regional Claims Office to handle only the ISMA program. Should you have questions or problems, you may speak directly to your claim processor at 800-348-4916. We look forward to serving your association and encourage your review of the program and services being provided.

For more information contact:

Earl W. Williams
Professional Account Representative
11595 N. Meridian St., Suite 802
Carmel, Indiana 46032
(317) 573-6520
1-800-421-3020 Indiana
1-800-428-7105 Other States

Tom Martens
Director, Health Insurance Administration
Indiana State Medical Association
3935 North Meridian Street
Indianapolis, Indiana 46208
(317) 926-4424
1-800-382-1721 Indiana

Are you reading this ad?

So are thousands of others. Reach more than 6,000 physicians with a display ad in *INDIANA MEDICINE*, the journal of the Indiana State Medical Association.

For additional information, contact *INDIANA MEDICINE*, 3935 N. Meridian St., Indianapolis, IN 46208 – (317) 925-7545.

– ISMA MEMBERS –

Mark Your Calendars!

What: 1990 Leadership Conference

Where: Holiday Inn North, Indianapolis

When: Saturday, March 24

For more information,
call Denise Le Doux at
(317) 925-7545 or
1-800-969-7545.

Advertising index

Affiliated Physicians Services	Cover
Bell Atlantic TriCon Leasing	207
Brown Pharmaceuticals	183
Central Pharmaceuticals	208
International Tours	203
Jackson & Coker	166
Lake Charlevoix	207
Lilly, Eli & Co.	182
Lincoln National Life	241
Medical Protective	197
Navy Medicine	179
Palisades Pharmaceuticals	170
Physicians' Directory	214
Physicians Insurance Co. of Indiana	Cover
Postgraduate Medicine	169
Roche Laboratories	170, 171, 195, 196
Smith, Kline & French	Cover
Spectrum Emergency Care	169
University Microfilms	208
U.S. Air Force	211, 240
U.S. Army Reserve	181

In accepting advertising for publication, *INDIANA MEDICINE* has exercised reasonable precaution to ensure that only reputable, factual advertisements are included. However, we do not have facilities to make comprehensive or complete investigation, and the claims made by advertisers in behalf of goods, services, medicinal preparations, apparatus or physical appliances are to be regarded as those of the advertisers only. Neither sanction nor endorsement of such is warranted, stated or implied by the association.

Are you moving?

If so, please send change of address to the Indiana State Medical Association, Membership Department, 3935 N. Meridian St., Indianapolis, IN 46208, at least six weeks before you move.

Name: _____

Address: _____

City: _____

State: _____

Zip: _____

County: _____

Office phone: _____

Home phone: _____

IMPORTANT - Attach mailing label from your last copy of *INDIANA MEDICINE* here:

Who Knows More About Group Insurance Practice Than Physicians In Group Practice?



PICI asked Indiana physicians for input on a medical professional liability insurance plan especially for Medical Group Practices. The result is a comprehensive, innovative plan named, appropriately,

MedGroup

- Individual coverage for each physician, coverage for the group entity, coverage for all ancillary medical personnel.
- An annual premium reflecting the advantages of a computation system that establishes a single value based on the group's overall exposure.
- Significant discounts for administrative savings, favorable loss experience, risk management programs, size and characteristics of the group.
- Offered to Indiana multi-specialty or single-specialty groups organized as legal entities, with five or more physicians.
- Endorsed by the Indiana State Medical Association.

There's much more to MedGroup, and PICI thanks Indiana physicians for their valuable input. That's what makes PICI unique — a combination of insurance expertise and active physician involvement. After all, who knows more about group practice, than physicians involved in group practice?



8425 Woodfield Crossing Boulevard, Indianapolis, Indiana 46240
(317) 254-3970 • Toll Free 1-800-284-7424

TRUST



It's never been more important to specify 'Dyazide'.* Because that's the only way you can be sure your patients will receive 'Dyazide' quality...the quality that physicians and their patients have trusted for 25 years.

'Dyazide'—prescribe it with confidence, prescribe it by name. Specify, "Dispense as Written." Ask your patients to make sure that's what they receive when they present your prescription.

*There is no bioequivalent generic substitute for 'Dyazide'.

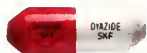
DYAZIDE®

25 mg Hydrochlorothiazide/50 mg Triamterene/SKF

Dispense as written

It's never been more important.

The unique red and white Dyazide® capsule:
Your assurance of SK&F quality.



a product of
SK&F LAB CO.

Cidra, P.R. 00639

© SK&F Lab Co., 1989

INDIANA MEDICINE

The Journal of the Indiana State Medical Association

April 1990

Vol. 83, No. 4



Trigger Finger and Thumb

JX
F. A. COUNTRY LIB OF MED
N.E. JOURN OF MED
10 SHATTUCK STREET
BOSTON MA 02115

Who Knows More About Group Insurance Practice Than Physicians In Group Practice?



PICI asked Indiana physicians for input on a medical professional liability insurance plan especially for Medical Group Practices. The result is a comprehensive, innovative plan named, appropriately,

MedGroup

- Individual coverage for each physician, coverage for the group entity, coverage for all ancillary medical personnel.
- An annual premium reflecting the advantages of a computation system that establishes a single value based on the group's overall exposure.
- Significant discounts for administrative savings, favorable loss experience, risk management programs, size and characteristics of the group.
- Offered to Indiana multi-specialty or single-specialty groups organized as legal entities, with five or more physicians.
- Endorsed by the Indiana State Medical Association.

There's much more to MedGroup, and PICI thanks Indiana physicians for their valuable input. That's what makes PICI unique — a combination of insurance expertise and active physician involvement. After all, who knows more about group practice, than physicians involved in group practice?



8425 Woodfield Crossing Boulevard, Indianapolis, Indiana 46240
(317) 254-3970 • Toll Free 1-800-284-7424

INDIANA MEDICINE

The Journal of the Indiana State Medical Association

April 1990

Vol. 83, No. 4

scientific contributions

CCM

Use of pressure support ventilation254

RADIOLOGY CLINIC

One-month-old infant with vomiting258

HAND CLINIC

Trigger finger and thumb260

Problem solving264

Clinical experience with ciprofloxacin:

Analysis of a multicenter study266

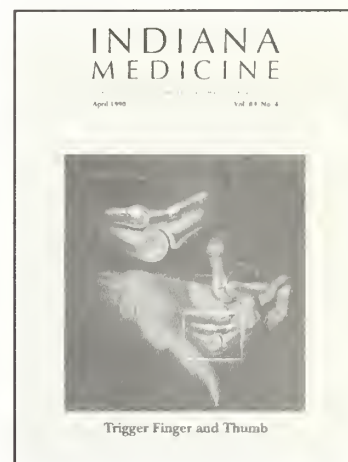
Eosinophilia myalgia syndrome270

features

Improving communications can prevent malpractice272

Physicians can reduce their risk of being sued by preventing
physician-patient communication breakdowns.

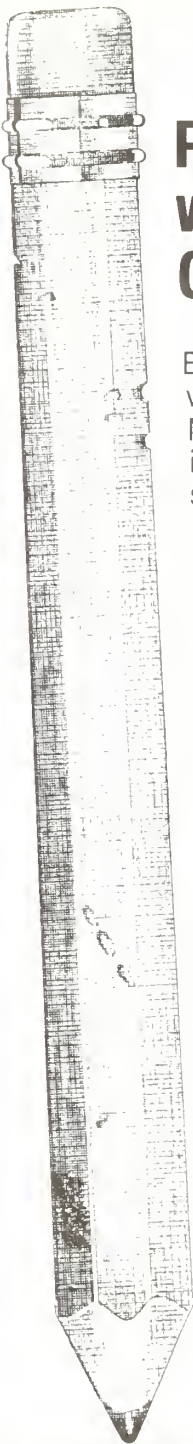
Snakeroot Extract275



Cover story on page 260. Cover
medical illustration by Lynn
O'Kelley, Baltimore, Md.

■ departments

stethoscope	245
from the museum	246
what's new	250
cme calendar	252
cme answers	256
drug names	271
guest editorial	282
auxiliary report	283
isma leadership	305
news briefs	306
obituaries	307
people	308
classifieds	310



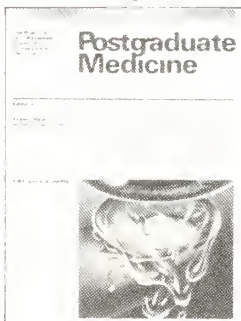
Pointing the way to more CME credit.

Earn more CME credit with Postgraduate Medicine's new and improved CME Program sponsored by the Interstate Postgraduate Medical Association.

More CME credits for less money (\$10.00).

Practical questions covering the most important points from each article—not just one symposium article.

Now, more than ever, you'll want to read every issue of Postgraduate Medicine from cover to cover!



4530 W 77th Street
Minneapolis, MN 55435
(612) 835-3222

INDIANA MEDICINE

Devoted to the interests of the medical profession and public health in Indiana since 1908.

EDITOR

Frank B. Ramsey, M.D.

MANAGING EDITOR

Tina Sims

EDITORIAL ASSISTANT

Toni Settle

BUSINESS MANAGER

Richard R. King

CIRCULATION

Dotty Martens

EDITORIAL BOARD

Elton Heaton, M.D.

Richard N. Dexter, M.D.

(Terms expire Dec. 31, 1991)

Robert L. Rudesill, M.D.

Robert C. Ziss, M.D.

(Terms expire Dec. 31, 1992)

Thomas J. Conway, M.D.

I.E. Michael, M.D.

(Terms expire Dec. 31, 1990)

Mike Agostino

Mark Rodefeld

(Medical students)

CONSULTING EDITORS

Steven C. Beering, M.D.

Charles A. Bonsett, M.D.

Alvin J. Haley, M.D.

Rodney A. Mannion, M.D.

Alan T. Marty, M.D.

W.D. Snively Jr., M.D.

INDIANA MEDICINE (ISSN 0746-8288) is published monthly by the Indiana State Medical Association. Second-class postage paid at Indianapolis, Ind., and additional mailing offices.

Address correspondence relating to editorial material, advertising or subscriptions to: INDIANA MEDICINE, 3935 N. Meridian St., Indianapolis, IN 46208. Phone (317) 925-7545 or 1-800-969-7545 (in Indiana only).

Annual subscription rates for nonmembers: \$24 domestic, \$26 Canada, \$27 foreign. Medical library rates: \$22 domestic, \$23 Canada, \$24 foreign. Full-time Indiana medical students: \$12. Single copies not available. Subscriptions are renewable annually.

POSTMASTER: Send address changes to INDIANA MEDICINE, Indiana State Medical Association, c/o Membership Department, 3935 N. Meridian St., Indianapolis, IN 46208.

Views expressed do not necessarily reflect the opinions of the editors. No copyright is claimed, unless specifically indicated. Copyright rests solely with authors, who are responsible for statements in their articles. Scientific and editorial contributions are accepted for exclusive publication, subject to editorial requirements. Instructions for authors available upon request.

All issues since 1967 are available on microfilm from University Microfilms International, 300 N. Zeeb Road, Ann Arbor, MI 48106. Indexed in *Index Medicus* and *Hospital Literature Index*.

Advertising rates and data available upon request. INDIANA MEDICINE reserves the right to accept or reject advertising copy.

AMA unveils "Health Access America" plan

The American Medical Association recently announced its proposal to improve access to affordable, quality health care to all citizens. The elements of the proposed plan, known as "Health Access America," may be summarized in the following 16 points:

1. Increase access by enacting major Medicaid reform.
2. Increase access by requiring employer provision of health insurance.
3. Increase access by creating state-level risk pools in all states.
4. Maintain access and reduce costs for the elderly by enacting Medicare reform.
5. Increase access and reduce costs for the elderly by enacting necessary legislation to finance expanded long-term care coverage.
6. Reduce health care costs through professional liability reform.
7. Maintain quality and reduce costs through development of professional practice parameters.
8. Reduce health care costs through altering the tax treatment of employee health care benefits.
9. Reduce costs by encouraging cost-conscious decisions by patients.
10. Reduce costs by seeking innovation in insurance underwriting.
11. Maintain quality through expanded federal support for medical education, research and the National Institutes of Health.
12. Maintain quality and reduce costs through increased health promotion and disease prevention.
13. Reduce costs and increase access by amending ERISA or the federal tax code to equalize treatment of self-insured and insurance plans.
14. Reduce costs and increase access by repealing or overriding state-mandated benefit laws.
15. Reduce costs by reducing administrative costs and paperwork.
16. Maintain quality and access through encouraging physicians to practice in accordance with the highest ethical standards and to provide voluntary care.

Health policy commission hears ISMA testimony

A representative of the Indiana State Medical Association presented testimony March 23 at a meeting of the Indiana Commission on Health Policy. The ISMA was asked to provide the following information: the statistical analysis of the profession, including the number of Indiana physicians by specialty and sources of physician revenue; the costs and time of a medical education; the licensing and certification process for physicians; the investigation and disciplinary process; continuing education requirements and process; important trends; and prevailing attitudes of profession leaders. The commission was established to improve the effectiveness of health care programs financed by the state and to improve the effectiveness and delivery of health care services in Indiana. □

■ from the museum

(Editor's note: From the museum, a new monthly column, debuts this month in INDIANA MEDICINE. The column will feature the programs and collections of the Indiana Medical History Museum, located in the Old Pathology Building on the grounds of Central State Hospital in Indianapolis.)

In 1847, John Ingle of Vanderburgh County suffered an inflammation in his right eye. He consulted a physician about his condition and received the standard therapy. He wrote to his brother: "I have been cupped, Bled & Blistered & half starved into the Bargain, yet it is still bad ..."

Bloodletting, one of the treatments Ingle received, is an ancient medical therapy and has been practiced in some form by almost all cultures. The Indiana Medical History Museum has a large number of bloodletting devices in its collection.

The therapy is based on the theory of humoral pathology. That is, physicians originally believed that disease occurred when one of the four humors of the body (blood, phlegm, yellow bile and black bile) were in excess. To restore health to the body, the doctor evacuated these fluids through drugs that caused purging and by removing blood from the body. Physicians disagreed over the amount of blood to be removed. Eighteenth and 19th century doctors bled until syncope. Others advocated the removal of 10 to 12 ounces of blood.

Bloodletting dates to at least the 5th century B.C. Hippocrates was a strong advocate of the remedy. The therapy has always been controversial. Opposition to bloodletting has waxed and waned since its introduction. The author of the

first treatise on the pulse, Aegimios of Eris (470 B.C.), strongly opposed the use of bloodletting. The treatment, however, survived into the 19th century, and among physicians in some localities, it endured well beyond the time the empirical evidence proved the therapy ineffective.

The treatment was very popular in 18th and early 19th century America. Benjamin Rush (1746 to 1813), one of the signers of the Declaration of Independence, was bloodletting's strongest advocate. During the yellow fever epidemics of the late 18th century, he recommended massive bleedings for sufferers of the disease. The over-enthusiasm for bloodletting often was fatal. George Washington, who in 1799 suffered from an inflammation of the throat, was bled four times in two days. Washington's physician later admitted that his death might have been caused by excessive bloodletting.

By the Civil War, the therapy had fallen into disfavor. The death knell for the treatment came when doctors at hospitals in France began systematically performing autopsies. They soon realized that bloodletting had been ineffective in treating various diseases. Their work slowly spread to the United States.

As letters and diaries during the early 19th century indicate, bloodletting was extremely popular in Indiana. In the 1850s, the Indiana State Medical Association revealed that bloodletting was ineffective in certain diseases.

Physicians practiced two types of bloodletting – generalized and localized. In generalized bloodletting, the physician opened a vein, and in some cases an artery, whereas in localized bloodletting, the doctors severed the capillaries

and removed the blood by some means of suction (i.e., leeching and cupping were the most common ways to remove blood in this manner).

To perform general bloodletting, the physician employed lancets, spring lancets and fleams. Scarificators, cupping devices and artificial leeches were used for localized bleeding. Several of these instruments represented technological advances. For example, the spring lancet, developed in the late 17th century, allowed the physician to pierce a vein without exerting manual pressure on the lancet; the multi-bladed scarificator enabled the physician to adjust the depth of penetration into the skin.

The museum has thumb lancets, spring lancets and scarificators in its collection. However, it lacks bleeding bowls and leech jars and would welcome these donations.

For information, contact the Indiana Medical History Museum, 3000 W. Washington St., Indianapolis, IN 46222, (317) 635-7329. □



Items pictured include a cupping glass (top) and a fleam (bottom).

DISPENSE AS WRITTEN

DAW

MD. INDIANA

The practice is yours.
The patients are yours.
The prescriptions are yours.

Make the prescribing decision yours, too.

Sign on the left on the
"Dispense as written" line.

Specify **VALIUM**
brand of
diazepam/Roche®

The cut out "V" design is a registered trademark of Roche Products Inc.

The one you know best.



ROCHE Roche Products

YOCON® YOHIMBINE HCl

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubiaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it, however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.^{1,2} Also dizziness, headache, skin flushing reported when used orally.^{1,3}

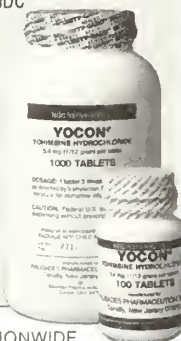
Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.^{1,3,4} 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.³

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed. p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27/2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85

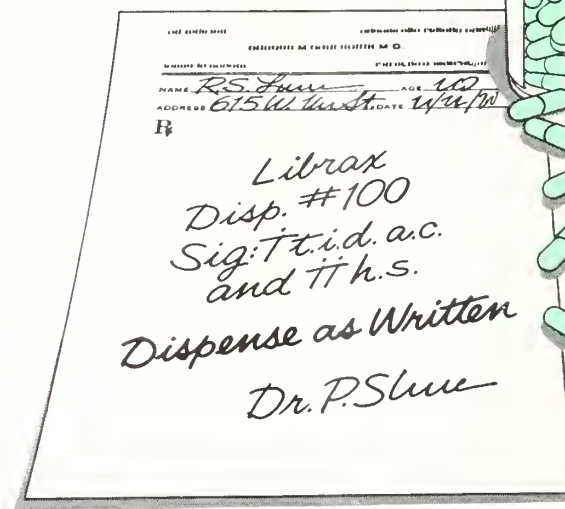


AVAILABLE AT PHARMACIES NATIONWIDE

**PALISADES
PHARMACEUTICALS, INC.**

219 County Road
Tenafly, New Jersey 07670
(201) 569-8502
1-800-237-9083

Specify Adjunctive LIBRAX®



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg cimetidine bromide.

Please consult complete prescribing information, a summary of which follows:

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or cimetidine Br.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Use in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazepines (see Drug Abuse and Dependence).

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

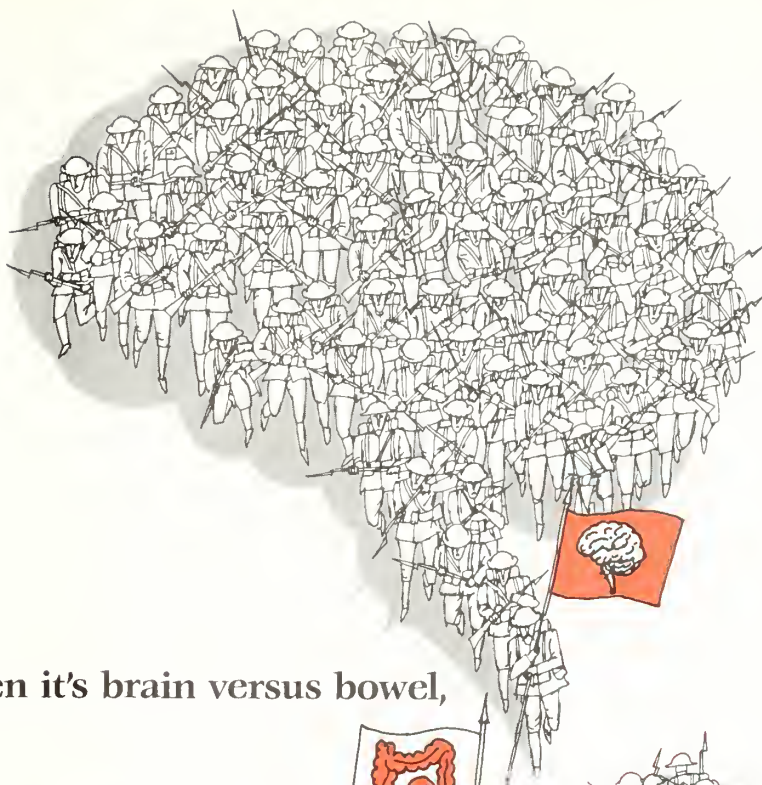
Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuance of chlordiazepoxide; more severe seen after excessive doses over extended periods, milder after taking continuously at therapeutic levels for several months. After extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence.

ROCHE Roche Products

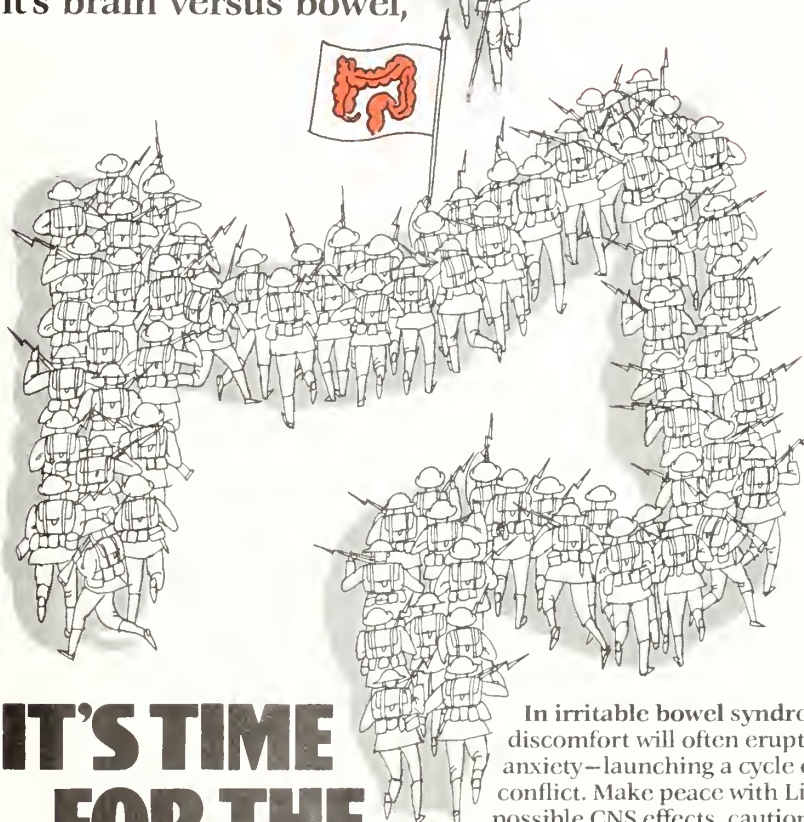
Roche Products Inc.
Manati, Puerto Rico 00701

IN

To insist on the brand, be sure to sign on the "Dispense as Written" line of your prescription.



In IBS,* when it's brain versus bowel,



**IT'S TIME
FOR THE
PEACEMAKER.**

In irritable bowel syndrome,* intestinal discomfort will often erupt in tandem with anxiety—launching a cycle of brain/bowel conflict. Make peace with Librax. Because of possible CNS effects, caution patients about activities requiring complete mental alertness.

*Librax has been evaluated as possibly effective as adjunctive therapy in the treatment of peptic ulcer and IBS.

Specify Adjunctive

LIBRAX®

Each capsule contains 5 mg clordiazepoxide HCl and 2.5 mg clidinium bromide.

ROCHE

■ what's new

Barrington Press has released *Practice Made Perfect: The Communication and Marketing Guide for Physicians*. The book offers physicians advice on how to assess their practices, build patient trust, streamline the office, make the staff an asset, conduct an effective interview, profitably serve the community, reduce the risks of malpractice suits, advertise appropriately, prepare for media appearances, revitalize the image of the medical profession and make rewarding career choices.

Midmark Corp. has introduced the new Ritter M-8 EasyClave Self-Contained Steam Sterilizer that is used for sterilizing stainless steel instruments and utensils and rubber and plastic items. No plumbing is required to operate the M-8. The user simply fills it with distilled water, inserts the instruments, replaces the lid and pushes the start button. The sterilization cycle takes only 16 minutes.

Abbott Laboratories has introduced a 15-minute version of its physician office diagnostic test, called TestPack Chlamydia. The development of this test will enable patients to get test results with only one visit to a physician's office and begin any necessary treatment immediately.

The **United States Pharmacopeial Convention, Inc.** has announced its newly revised and updated Patient Medication Instruction Program leaflets are now available. The leaflets are avail-

able for 81 drug titles, each containing clinical information about the drug in lay language. They are designed to help physicians improve patient compliance in drug use, increase the effectiveness of drug therapy and strengthen the physician-patient relationship. For information, call 1-800-227-8772, ext. 764.

Hewlett-Packard Co. is marketing its line of support products and services for health care customers under the name HP AC-COMPLISH customer support. The support program encompasses a variety of services, including technology planning and installation, consulting, customizations, education in product and medical applications, HP Response Center services and product enhancements. The new brand name was selected to place emphasis on how services help health care customers succeed in their work.

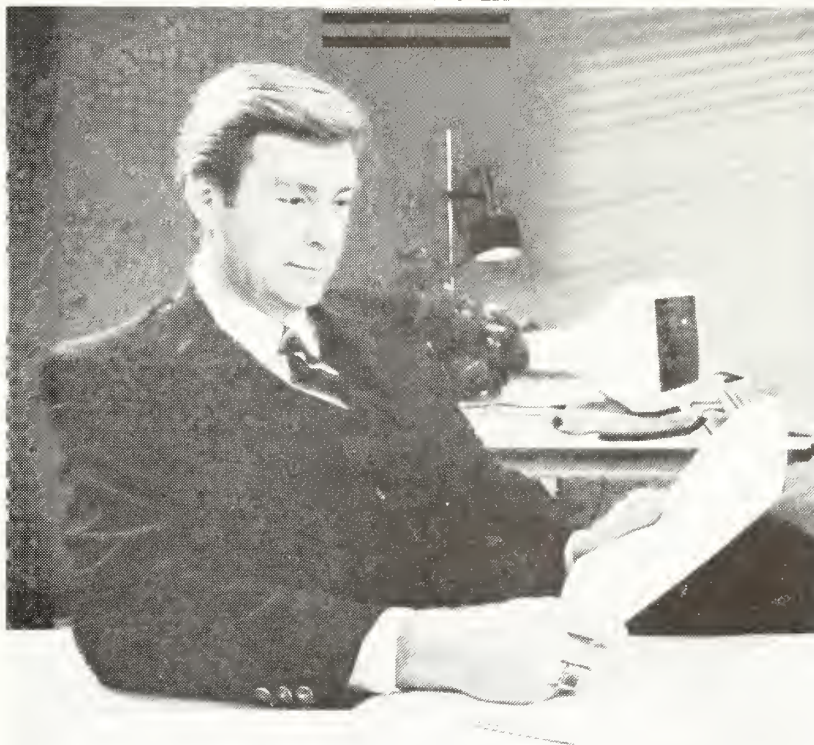
Eastman Kodak Co. has developed a lactate test for use with its blood analyzer equipment. Blood lactate measurements are early indicators of oxygen deprivation. Elevated concentrations of lactate are commonly observed in critical care cases, such as circulatory and septic shock, myocardial infarction, cardiac arrest and certain types of drug toxicity. The test requires no pretreatment step and can be completed in six minutes. The small, required sample makes the test applicable for premature infants, neonates and geriatric patients.

Wampole Laboratories has introduced the Zeus Scientific line of Lyme ELISA tests for detection of IgG and IgM antibodies in human sera. The assays are formatted in eight well strips coated with inactivated whole *B. burgdorferi* antigen.

Siemens Medical Systems, Inc. is marketing a new multi-purpose CT Trauma Stretcher for use exclusively with Siemens Somatom HiQ and Plus CT systems. The stretcher functions as a fully equipped emergency room stretcher and as a computed tomography imaging platform. It is equipped with multiple intravenous line supports, can support a 450-lb. patient and has a scan range six inches longer than most CT stretchers.

Oncogenetics Partners, a joint venture between Du Pont and Applied bioTechnology of Cambridge, Mass., has produced the first commercially available immunoassay kit (protein identification test) to measure proteins produced by oncogenes. Recent data suggest that the Human neu Oncoprotein ELISA Kit may help predict a breast cancer patient's chances for survival. □

News of what is new in the medical supply industry is composed of abstracts from news releases. Each item published does not necessarily constitute an endorsement of a product or recommendation for its use by INDIANA MEDICINE or by the Indiana State Medical Association.



Hundreds of careful physicians have selected MDX medical data software. Find out why.

MDX® is the software selected by physicians who have thoroughly investigated their choices. In fact, physicians in nearly 2,000 medical practices nationwide now rely on the comprehensive, logical features of MDX.

And they're enjoying benefits like these:

- Improved cash flow through faster billings and real control of A/R aging
- Faster, more accurate generation of insurance claims for surprisingly fast turnaround
- Better-organized medical records for research, improved patient care, and risk management

- More efficient use of office hours with electronic appointment scheduling

Team MDX with a UNIX/Xenix operating system and one of today's most advanced computers for multi-user, multi-tasking efficiency. Or, begin with MDX-PC on a PC-compatible, and upgrade later to a larger MDX system without the need to reenter data or relearn procedures.

Call us for more information on MDX—and on hardware that's right for your practice.



MDX®



150 N. SUNNYSLOPE ROAD/BROOKFIELD, WI 53005
(800) 558-2208 (414) 782-0300

1214 North Meridian Street
Indianapolis, Indiana 46204

Phone (317) 634-2913
Fax (317) 638-1843

MDX is a registered trademark of Calyx Corporation; UNIX is a trademark of Bell Laboratories; Xenix is a trademark of Microsoft Corp.

■ cme calendar

Indiana University

The Indiana University School of Medicine will sponsor the following courses:

- Apr. 20-22** – Advanced Trauma Life Support/Instructor Course, Indiana University Medical Center, Indianapolis.
- Apr. 23-27** – Electrocardiographic Interpretation of Complex Arrhythmias: A Physiological Approach, Kranert Institute of Cardiology, Indiana University Medical Center, Indianapolis.
- Apr. 23-25** – Echocardiography: Coronary Artery Disease, Stress Echocardiography, Doppler Color Flow, Transesophageal Echocardiography, Digital Storage and Display, University Place Executive Conference Center and Hotel, Indianapolis.
- Apr. 24-26** – Family Practice Update, Part I, University Place Executive Conference Center and Hotel, Indianapolis.
- Apr. 27** – 13th Annual Arthur B. Richter Conference, Young Children in Court, Children as Victims/Witnesses, I.U. Medical Center, Indianapolis.
- Apr. 28** – Nephrology Update, Westin Hotel, Indianapolis.
- May 3-4** – 1990 Symposium on Mammography and Breast Ultrasound, University Place

Executive Conference Center and Hotel, Indianapolis.

- May 10** – Osteoporosis in the 1990s, University Place Executive Conference Center and Hotel, Indianapolis.
- May 11** – Sixth Annual Marlow Manion Lecture, Wishard Memorial Hospital, Indianapolis.
- May 10-12** – Annual Meeting of the Indiana Chapter, American College of Surgeons, French Lick Springs, French Lick, Ind.

For information, call Melody Dian, (317) 274-8353.

Methodist Hospital

Methodist Hospital of Indiana will sponsor the following CME courses:

- Apr. 20** – Diabetes Update 1990, Methodist Hospital, Petticrew Auditorium, Indianapolis.
- Apr. 21** – External Fixation Workshop, Methodist Hospital, Wile Hall, Indianapolis.
- Apr. 27** – Emergency Medicine Research Day 1990, Methodist Hospital, Medical Lecture Room, Indianapolis.
- Apr. 28** – Cardiology Update: Current Concepts in Primary Care, Methodist Hospital, Petticrew Auditorium, Indianapolis.
- May 3-4** – 16th Annual William Niles Wishard Jr., M.D., Memorial Lecture, co-sponsored by the Indiana University School of

Medicine.

- May 4-5** – Laparoscopic Cholecystectomy Workshop, Methodist Hospital, Wile Hall, Indianapolis.
- May 10-11** – Doppler Ultrasound and Interventional Radiology, Hilton-on-the-Circle, Indianapolis.
- May 11** – Mild Head Injury, Methodist Hospital, Petticrew Auditorium, Indianapolis.

For more information, call Dixie Estridge, (317) 929-3733.

Purdue University

The Purdue University Calumet Gerontology Center will sponsor "The Management of Dementia: Issues in Health Care Delivery" May 15 at the Patio Restaurant in Merrillville.

The speaker will be Peter J. Whitehouse, M.D. He is director of the Alzheimer Center of the University Hospitals of Cleveland and associate professor in the Department of Neurology and director of the Division of Behavioral Neurology at Case Western Reserve.

To make reservations, call Regina Zdravich, (219) 980-6560, or call Dr. Jean Prebis, (219) 989-2578.

Community Hospitals

Community Hospitals Indianapolis will sponsor "Progress in Cancer: 1990 Science Made Human" May 10 and 11.

Guest speakers will include Irving Fleming, M.D.; Omar Salazar, M.D.; Larry Einhorn, M.D.; Susan Mellette, M.D., and Catherine Hogan, R.N., M.S.N.

For more information, call Carolyn Roeder, administrative assistant, (317) 353-4269. □

*Because safety
cannot be taken for granted
in H₂-antagonist therapy*

AXID[®]
nizatidine

Minimal potential for drug interactions

*Unlike cimetidine and ranitidine,¹
Axid does not inhibit the cytochrome
P-450 metabolizing enzyme system.²*

Swift and effective H₂-antagonist therapy

- Most patients experience
pain relief with the first dose³
- Heals duodenal ulcer
rapidly and effectively^{4,5}
- Dosage for adults with active
duodenal ulcer is 300 mg once nightly
(150 mg b.i.d. is also available)

References

- 1 *USP DI Update*, September/October 1988, p 120.
- 2 *Br J Clin Pharmacol* 1985;20:710-713.
- 3 Data on file, Lilly Research Laboratories
- 4 *Scand J Gastroenterol* 1987;22(suppl 136):61-70.
- 5 *Am J Gastroenterol* 1989;84:769-774

AXID[®] nizatidine capsules

Brief Summary Consult the package literature for complete information.

Indications and Usage: 1. *Active duodenal ulcer*—for up to eight weeks of treatment. Most patients heal within four weeks.

2. *Maintenance therapy*—for healed duodenal ulcer patients at a reduced dosage of 150 mg h.s. The consequences of therapy with Axid for longer than one year are not known.

Contraindication: Known hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other H₂-receptor antagonists.

Precautions: General—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests—False-positive tests for urobilinogen with Multistix[®] may occur during therapy.

Drug Interactions—No interactions have been observed with theophylline, chloridazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect, but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported. **Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H₂-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H₂-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H₂-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

PV 2098 AMP

[091289]

Additional information available to the profession on request.

 **Eli Lilly and Company**
Indianapolis, Indiana
46285

NZ-2924-B-049310

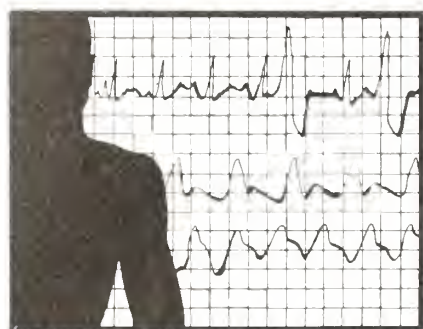
© 1990, ELI LILLY AND COMPANY

Axid[®] (nizatidine, Lilly)

Axid[®] (nizatidine, Lilly)

Axid[®] (nizatidine, Lilly)

Use of pressure support ventilation



ADULT CRITICAL CARE MEDICINE

Methodist
A Hospital OF INDIANA, INC.

Marylin A. Datzman, M.D.
Indianapolis

Pressure support ventilation (PSV) is a relatively new mode of ventilatory support that is available on several of the new generation microprocessor mechanical ventilators, such as the Siemens Servo 900C, the Puritan Bennett 7200a and the Bear 5. Interest in PSV has grown because it provides potential reduction in the patient's work of breathing. Reduction in work of breathing can lead to less respiratory muscle fatigue and increased patient comfort. The following discussion is a review of the physiologic effects and proposed clinical uses of PSV.

Technical aspects

PSV provides a constant positive airway pressure within the lung after inspiration is initiated by the patient's spontaneous inspiratory effort. A preset pressure plateau is rapidly reached by an inward flow of gas from the ventilator and maintained until the patient's own inspiratory flow decreases to a minimal level that is specific for different ventilators. The pressure assist then ceases and exhalation occurs passively (*Figure*). The level of pressure available ranges from 1 to 100 cm H₂O although most clinical use varies from 5 to 20 cm H₂O.¹

This system allows the clinician to set the pressure level while the

patient determines the respiratory rate, inspiratory assist time and, therefore, tidal volume. Of course, other physiologic considerations, such as airway resistance and lung compliance, also contribute to the level of pressure required to deliver an adequate tidal volume. By allowing a degree of ventilating control by the patient, this system provides improved patient-ventilator "synchrony" and helps reduce the sensation of dyspnea.² These benefits can increase patient comfort and decrease the need for sedation.

Pressure support ventilation differs from other forms of intermittent positive pressure breathing by maintaining a positive pressure plateau as long as the patient's inspiratory effort exists. Intermittent positive pressure ventilation provides a peak pressure that is present at a predetermined pressure or volume and is not held throughout the patient's own inspiration. PSV also differs from continuous positive airway pressure (CPAP) because PSV pressure is applied only during inspiration (*Figure*). However, CPAP may be added to the PSV mode in cases where continuous pressure is needed in maintaining oxygenation.

Physiologic effects

Excessive respiratory muscle workloads caused by elevated minute ventilation requirements,

increased airway resistance or reduced lung compliance often result in diaphragmatic fatigue and failure. These fatigued muscles require a significant reduction in the workload to recover. Unfortunately, synchronized intermittent mandatory ventilation (SIMV) and even assist-control ventilation (AC) require a significant level of work of breathing for intubated patients and, therefore, may not adequately rest fatigued respiratory muscles.³

PSV can allow manipulation of total work per breath as well as pressure/volume work characteristics.⁴ This may improve the endurance conditioning rather than high power output by the diaphragm. However, many of these conditions are difficult to measure, and such proposed advantages are still theoretical.

The hemodynamic effects of PSV have not been fully examined. Studies of pressure support ventilation with IMV and PSV versus CPAP have not shown significant adverse cardiovascular effects at levels up to 30 cm H₂O pressure.⁵ However, these studies involved small numbers of patients and did not evaluate patients with primary respiratory failure or unstable cardiovascular status.

Clinical uses

PSV currently is used in three different clinical settings: 1) as a complete ventilatory support mode; 2) in conjunction with IMV; and 3) in patients who require endotracheal tubes for airway protection or for application of CPAP but who do not require actual ventilatory supplementation.

1) *Use of PSV as the only ventilatory mode* – This technique re-

quires the patient to have an adequate ventilatory drive that ensures a consistent respiratory rate. In this setting, the ventilator does not provide a backup rate to provide machine breaths in the event of apnea. This limitation precludes the use of PSV early in the course of many cases of acute respiratory failure since many of these patients have an unreliable respiratory rate of their own. Some of these patients may be supported with pressure support, but others may require a more controlled form of ventilatory assistance until their respiratory drive is more stable.

To use the PSV in those patients with consistent respiratory effort but who require mechanical ventilatory assistance, an initial inspiratory pressure setting is chosen that provides a tidal volume of 10 to 12 ml/kg during the pressure supported breath. Various formulas have been proposed to determine the minimal level of pres-

sure support required to deliver an adequate tidal volume.¹ Each has a different theoretical basis (e.g., level of airway resistance or peak airway pressure), but none of these formulas replaces close interaction between the physician and respiratory therapist in monitoring the patient's actual tidal volume and clinical condition.

The pressure support mode currently is being investigated and used clinically as an aid in weaning patients from mechanical ventilation. Once the patient's clinical condition has stabilized and the underlying cause of respiratory failure has been reversed, weaning on pressure support can be achieved by a gradual reduction in the amount of pressure delivered. This allows gradual reconditioning of the respiratory muscles as more of the ventilatory effort is produced by the patient and less is supplied by pressure assistance. As with conventional mechanical ventilation, an in-

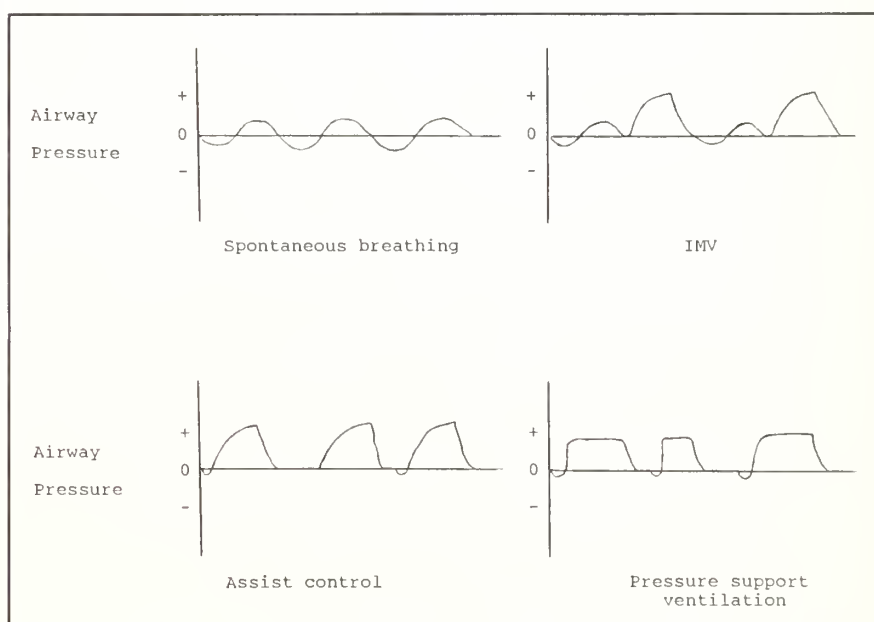


Figure.

crease in the patient's respiratory rate or reduction in tidal volume indicates a need to reassess the patient's ability to handle the respiratory workload. PSV has not yet been proven superior to previous weaning methods, but a limited study has shown PSV to result in a more efficient breathing pattern in some patients who have been difficult to wean.⁶

2) *PSV used in conjunction with IMV* – This combination typically employs a level of 5 to 10 cm H₂O pressure being applied to any spontaneous breath taken between IMV delivered breaths. Pressure support is used in this fashion to overcome the resistive component of the work of breathing during inspiration imposed by the endotracheal tube. Inspiratory work significantly increases with decreasing diameters of endotracheal tubes and with increasing respiratory rates and tidal volume.⁷ The addition of low levels of PSV to overcome this resistance may well assist in weaning patients where this is a factor.

3) *In patients intubated for airway protection or for application of CPAP* – In these patients, PSV can help prevent fatigue from the increased resistance of breathing through the endotracheal or tracheostomy tube as noted above. Generally, levels of 5 to 10 cm H₂O pressure are adequate for this purpose, but smaller tubes (e.g., < 7 mm) may require levels as high as 15 to 20 cm H₂O.

Potential complications

As with other full ventilatory support systems, prolonged total respiratory muscle rest can lead to atrophy. Therefore, long periods of high levels of pressure support should be avoided. Using levels

of pressure higher than required also has been associated with hyperinflation of the lungs where pulmonary compliance is high, such as emphysema. Apnea also has been reported in some of these patients with the use of PSV.⁶ Thus, the lowest level of pressure support that allows patient comfort and adequate ventilation should be used.

Another possible adverse effect has been described with the inadvertent application of CPAP through a pressure support system. Two cases have been described in which an endotracheal cuff leak allowed a continual flow from the ventilator that exceeded 5 l/min. Since a drop in inspiratory flow was not reached due to the leak around the tube, this caused continued pressure to be applied throughout the respiratory cycle, resulting in positive pressure even during exhalation.⁸ The application of high levels of continuous airway pressure can have significant adverse hemodynamic effects. This possibility must be recognized and rapidly corrected. Additional problems may be recognized as PSV becomes more widely used.

Conclusion

New modes of mechanical ventilatory support frequently are met with a good deal of unsupported enthusiasm. Properly controlled studies and adequate clinical experience are required to define the appropriate role for each new aspect of mechanical ventilation. PSV is a promising new innovation for certain indications, but potential advantages and disadvantages must be considered in each individual clinical setting. ▴

Correspondence: Marilyn A. Datzman, M.D., Methodist Hospital of Indiana, 1701 N. Senate Blvd., P.O. Box 1367, Indianapolis, IN 46206.

References

1. Hughes C, Papovich J Jr: Uses and abuses of pressure support ventilation. *J Crit Illness*, 4(4):25-32, 1989.
2. Kacmarek RM, Stoller JK, MacIntyre NR: *Current Respiratory Care*. Toronto: BC Decker Inc, 1988.
3. Marini J, Capps J, Culver B: The inspiratory work of breathing during assisted mechanical ventilation. *Chest*, 87:612-618, 1985.
4. MacIntyre NR: Respiratory function during pressure support ventilation. *Chest*, 89:677-683, 1986.
5. Murphy D, Dobb G: Effect of pressure support of spontaneous breathing during intermittent mandatory ventilation. *Crit Care Med*, 15:612-613, 1987.
6. Ershowsky P, Krieger B: Changes in breathing pattern during pressure support ventilation. *Resp Care*, 32:1011-1015, 1987.
7. Fiastro JE, Habib MP, Quon SE: Pressure support compensation for inspiratory work due to endotracheal tubes and demand continuous positive airway pressure. *Chest*, 93:499-505, 1988.
8. Black JW, Grover B: A hazard of pressure support ventilation. *Chest*, 93:333-335, 1988.

March CME quiz answers

The following letters are the answers to the CME quiz that appeared in the March 1990 issue: "Conduct disorder: A review."

- | | |
|------|-------|
| 1. c | 6. d |
| 2. d | 7. d |
| 3. e | 8. c |
| 4. b | 9. a |
| 5. c | 10. e |

Three Easy Ways To Improve the Cash Flow of Your Practice

1. Eliminate the four to six-week wait for payment from insurance carriers.

We quickly process your patient charges and electronically transmit your claims within two to three working days of their receipt in our office. You usually receive payment within 14 days!

2. Streamline your office staff and paperwork.

Our billing service helps you contain overhead costs and keep your energy focused where you want it — on your practice.

3. Improve your collections rate.

Our personalized collection letters and telephone follow-up get results.

Physicians Billing Service of Indiana, Inc. is the key to quickly implementing these money-saving measures plus many more. We customize our service to meet all your specific billing and reporting needs!

Call us today for more information. We'll show you how easy it is to make your practice work for you.



Physicians Billing Service of Indiana, Inc.

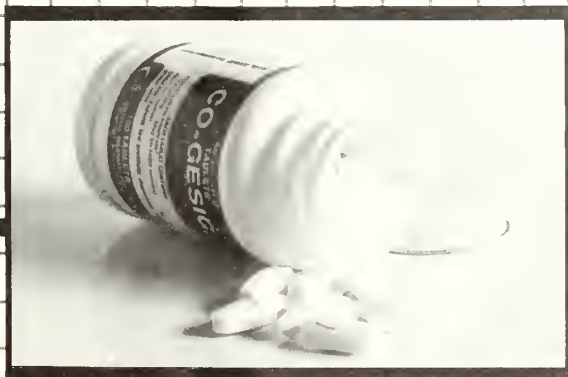
5435 North Emerson Way • Suite 230 • Indianapolis, Indiana • 46226 • (317) 545-2176, ext. M2

Co-Gesic[®] CIII

HYDROCODONE BITARTRATE* and ACETAMINOPHEN TABLETS

5 mg and 500 mg

*Warning — May be habit forming



Proven
Dependability



CENTRAL PHARMACEUTICALS, INC.

SEYMOUR, INDIANA 47274 USA

Quality Pharmaceuticals Since 1904

One-month-old infant with vomiting

Mary E. Below, M.D.
Indianapolis

A three-and-a-half-week, 36-week gestational age female was admitted to the emergency room with a two-day history of nonbilious projectile vomiting and a report of a cyanotic, choking episode.

The parents denied fever, chills or decrease in the number of wet diapers. Stools were normal. There was a history of imperforate anus with rectal fistula success-

fully repaired shortly after birth.

On physical exam, the patient was afebrile. The only remarkable finding was a 0.5 x 1.5 cm mass located 1 cm superior and lateral to the umbilicus. Laboratory examination revealed a normal Hb/HCT with an elevated white blood count of 21,000 and mild left shift. Serum electrolytes were normal.

Differential diagnosis

The history of nonbilious, projectile vomiting in a younger than one-month-old infant with a pal-

pable right upper quadrant mass classically describes pyloric stenosis. The laboratory data do not demonstrate dehydration or hypochloremic alkalosis one might expect with progressive emesis. Perhaps the cyanotic episode prompted earlier medical attention.

Gastroenteritis seems less likely with an afebrile history, normal stools and no accompanying upper respiratory tract symptoms.

Gastroesophageal reflux would be high in the differential in light of its common occurrence and the



Figure 1: Abdominal film – Dilated stomach with a paucity of distal bowel gas.



Figure 2: Upper gastrointestinal series – Oblique view of the stomach and duodenum.

patient's history of cyanotic episodes with emesis. The less likely differentials would be achalasia of esophagus, pyloric membrane and pyloric duplication. Adrenal insufficiency may simulate pyloric stenosis but, in this case, is excluded by lab data.

Radiographic findings

Some argue that a classic history and the physical finding of a firm movable right upper quadrant mass clinches the diagnosis of pyloric stenosis without radiologic intervention. In this case, a plain film of the abdomen was obtained and demonstrated a dilated fluid-filled stomach with a paucity of distal bowel gas (*Figure 1*). The patient had an upper gastrointestinal series, confirming the diagnosis of infantile hypertrophic pyloric stenosis (*Figure 2*).

Classic barium findings include: dilated stomach with decreased to absent distal bowel gas; delayed emptying of the stomach; a narrow, elongated pyloric canal filled with a fine core of barium (i.e., string sign) and impingement of the pyloric mass on the proximal antrum and distal duodenum. With a barium upper gastrointestinal series, there is a diagnostic error rate of 4% to 11% and the possible danger of aspiration; therefore, ultrasound has replaced barium as the diagnostic study of choice. In skilled hands, the very characteristic hypoechoic muscle mass with central echoes can be identified successfully and barium deferred.

Discussion

As the most important gastric

lesion in the first weeks of life, infantile hypertrophic pyloric stenosis occurs between 1 week and 5 months of age. Approximately one in 150 male infants and one in every 750 female infants are affected. A high familial incidence is noted, but inheritance is believed to be multifactorial. While etiology is unclear, theories include increased gastrin production and/or edema and spasm produced by propelled milk curd. Pathologically, there is both smooth muscle hypertrophy and hyperplasia.

Clinically, patients develop pyloric stenosis at the second and third week of infancy. They usually develop progressive emesis after feedings, followed by the development of projectile nonbilious emesis, which may be blood-tinged due to gastric irritation.

On physical exam, there are varying degrees of lethargy, dehydration and weight loss. Visible peristalsis across the upper abdomen may be prominent, especially after feeding. Depending on the experience of the examiner, 70% to 90% of pyloric masses may be felt.

Extensive, protracted vomiting may lead to critically low potassium and sodium levels. A more striking decrease in chloride and an increase in pH occur as hypochloremic alkalosis develops. In 2% to 9% of cases, an indirect hyperbilirubinemia has been seen in association with stenosis.

Management

In the United States, after volume status and electrolyte imbalances have been corrected, the treatment of choice is Fredet-Ram-

stedt pyloromyotomy. The post-operative success rate is very high, and the mortality rate is less than 1%. Generally, jaundice is resolved within five to 10 days.

In Europe, management is conservative, involving a regimented feeding schedule, parenteral nutrition and anticholinergic blocking agents. The recovery is slow (two to eight months) with a higher fatality rate and higher costs. In the United States, medical management is only attempted for nonoperative candidates.

The patient presented here successfully underwent pyloromyotomy with complete recovery. □

The author is a resident in the Department of Radiology at the Indiana University Medical Center.

Section editor: Robert D. Tarver, M.D., Indiana University Medical Center, Department of Radiology, Wishard Memorial Hospital, Indianapolis.

References

1. Silverman F: *Caffey's Pediatric X-ray Diagnosis*. 8th ed. Chicago, Ill: Year Book Medical Publishers Inc; 2:1444-1448, 1985.
2. Nelson W: *Nelson Textbook of Pediatrics*. 13th ed. Philadelphia, Pa: W.B. Saunders Co; 1050-1053, 1987.
3. Welch K: *Pediatric Surgery*. 4th ed. Chicago, Ill: Year Book Medical Publishers Inc; 811-815, 1986.
4. Swischuk L: Atypical muscle hypertrophy in pyloric stenosis. *AJR*, 134:481-484, 1980.
5. Haller J: Hypertrophic pyloric stenosis: Diagnosis using US. *Radiology*, 161:335-339, 1986.

Trigger finger and thumb

James J. Creighton Jr., M.D.
Richard S. Idler, M.D.
James W. Strickland, M.D.
Indianapolis

Painful locking of the fingers or thumb is a common disorder in the hand. This condition, known as stenosing tenosynovitis, most commonly is manifested as painful snapping or triggering in a digit during finger motion.

The triggering, noted during either finger flexion or extension, often is incorrectly thought to arise from a problem existing in the middle joint of the finger (PIP joint) or in the distal joint of the thumb (IP joint) because these joints appear to jump or lock. The true area of pathology, however, is the region of the metacarpal phalangeal joint, where, as a result of a mechanical obstruction, there is disruption of the otherwise smooth gliding mechanism of the flexor tendon as it enters the digital flexor sheath.

The digital flexor sheath contains within it five discrete "annular bands" (A1 through A5 pulley), which prevent flexor tendon bowstringing and maximize flexor tendon efficiency relative to digital motion (Figure 1). Flexor tendon nutrition in the proximal region of the flexor sheath is dependent upon perfusion from the surrounding tenosynovium rather than the vincula system, which perfuses the flexor tendons distally through a small vessel network. These two anatomic structures, annular band and flexor

tenosynovium, become involved in the underlying pathophysiologic processes of trigger finger and thumb.

The first annular pulley acts as

a fulcrum about which the flexor tendon bends (Figure 2). This fulcrum has been postulated as causing focal tendon degeneration with sheath thickening and ten-

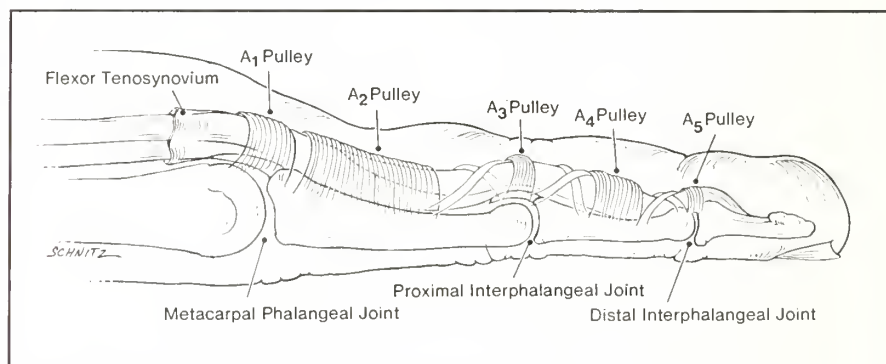


Figure 1: Digital flexor tendon sheath.

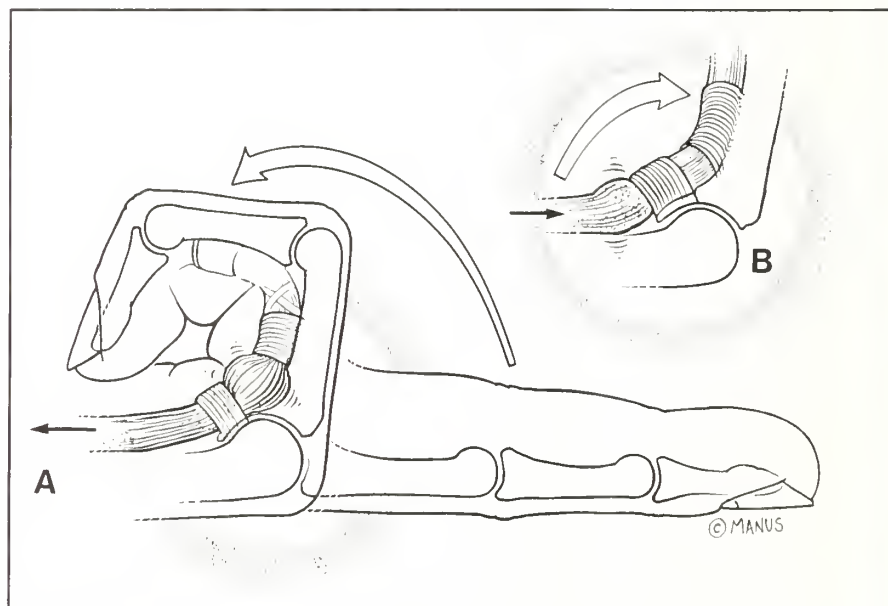


Figure 2 A: Limitation in digit flexion arising from tendon impingement at the A1 pulley. B: Prevention of digit extension by tendon enlargement proximal to A1 pulley.

don nodule development.¹ This nodular tendinous enlargement increases the cross-sectional diameter of the tendon as it enters the flexor sheath and thereby obstructs the mechanical gliding at the first annular band. Hypertrophy of the tenosynovium surrounding the proximal flexor tendons also can create a mechanical restriction to tendon gliding at the first annular pulley.

Idiopathic or primary trigger finger most commonly occurs in middle-aged women. The usual finger involvement is the middle or ring finger. Multiple finger involvement often represents "secondary trigger fingers," which can arise from medical conditions such as rheumatoid arthritis, gout, amyloid, mucopolysaccharidoses and other metabolic conditions that cause changes within connective tissue and synovium. Multiple trigger fingers also can be seen in patients with work or hobby activities that require repetitive grasping or power grip.²

Presenting symptoms, before the development of digital triggering, may be an area of discomfort noted at the distal palmar crease of the hand. This area correlates with the proximal most extension of the flexor sheath in the region of the first annular pulley.

Conservative treatment methods are indicated in this condition except in the case of an irreducibly locked digit.⁴ This management technique involves the modification of provocative activities in work and or hobbies that may have caused the flexor tenosynovitis. Also, oral nonsteroidal anti-inflammatories and daytime splinting of the metacarpal phalangeal joint in extension for approximately two weeks can be used.

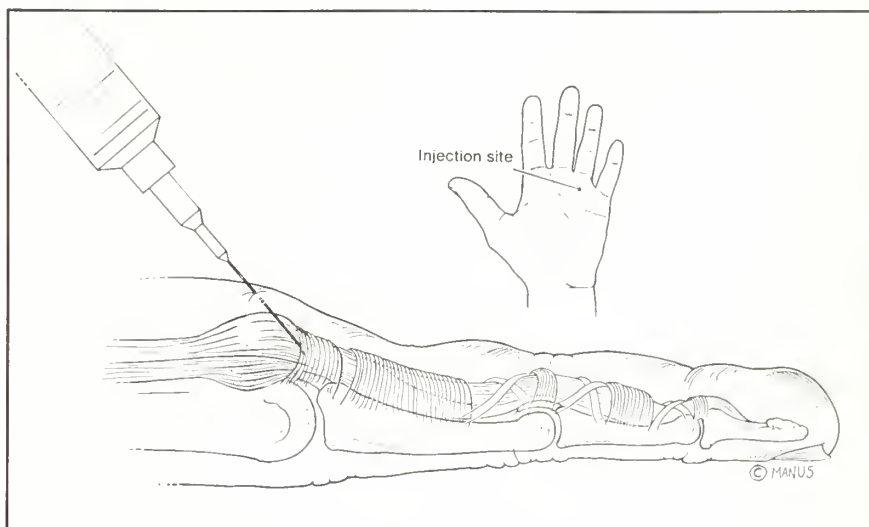


Figure 3: Trigger finger injection technique.

Steroid injection into the area of primary pathology, the proximal flexor sheath and annular pulley, is the most direct treatment route. Reported complications include skin and fat atrophy, tendon rupture, postinjection neuritis and infection. Marks,³ however, reported a cure rate of 84% following trigger finger injection with no complications. Otto⁴ reported 60% of digits required no further treatment following tendon sheath injection, while 17% eventually required surgical intervention.

The injection technique involves the insertion of a 25-gauge needle at the proximal most extension of the fibro-osseous sheath, which is located just distal to the distal palmar crease (Figure 3). The needle is introduced at a 45° angle to the longitudinal axis of the metacarpal. If excessive force is necessary to introduce the combination of 0.5 cc Celestone and 0.5 cc plain Marcaine, then the needle should be repositioned until a fluid wave can be palpated in the

distal flexor sheath during the injection process. Patients are encouraged to use their finger in a normal fashion following this injection and should anticipate a gradual decrease in the incidence of triggering during the next seven days. If symptoms persist or recur within four to six weeks, reinjection is possible. If triggering recurs or if the finger becomes irreducibly locked, surgical intervention is warranted.

Surgical management for trigger finger is performed as an outpatient procedure under local anesthetic. The area over the A1 pulley is anesthetized using 3 cc of plain Lidocaine solution. Limb exsanguination is maintained through an arm tourniquet inflated to 250 mm Hg. Surgical exposure is performed through a transverse or zigzag incision at the distal palmar crease. Blunt dissection through the subcutaneous fat allows exposure of the proximal portion of the fibro-osseous sheath, first annular pulley, as well as visualization of the

radial and ulnar digital neurovascular bundle, which lie adjacent to the flexor sheath. The first annular pulley is released through a longitudinal incision. The distal border of the A1 pulley correlates with the anatomic landmark of the MP flexion crease. Release of the fibro-osseous sheath beyond this landmark jeopardizes the integrity of the second annular pulley, which can lead to flexor tendon bowstringing and limitation in digital motion. Before wound closure, the patient is asked to actively extend and flex the finger to ensure complete sheath release. A dressing is applied to ensure wound protection but maintain digital motion.

Multiple trigger fingers may be a sign of flexor tenosynovitis associated with rheumatoid arthritis.

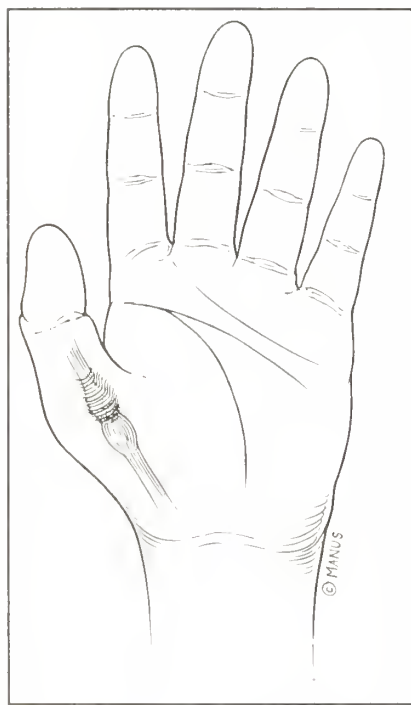


Figure 4: Trigger thumb with nodular enlargement of flexor pollicis longus at A1 pulley.

In these patients with secondary trigger fingers who do not respond to cortisone injection, flexor tenosynovectomy often is necessary. In the rheumatoid patient, release of the A1 pulley is not recommended because this enhances the biomechanical forces that are responsible for the finger deformity of rheumatoid arthritis, that is, volar subluxation and ulnar deviation of the digit at the metacarpal phalangeal joint. If flexor tenosynovectomy does not allow unrestricted gliding within the fibro-osseous sheath, resection of a slip of the flexor digitorum superficialis tendon will provide more room within the flexor sheath for the remaining slip of the superficialis and the flexor digitorum profundus tendon.

The most frequent surgical complication is digital nerve injury, which, if recognized, requires prompt nerve repair. Release of the second annular pulley, in addition to the first annular pulley, results in the loss of finger motion. Care to release only the A1 pulley will prevent this debilitating complication.

Trigger thumb may occur in newborns and adults (Figure 4). Congenital trigger thumb in newborns usually is evident when the interphalangeal joint is held in flexion. Most of these patients have bilateral thumb involvement. Approximately one-third of these thumbs regain motion of the flexor pollicis longus tendon when followed during the first year of life. Conservative management consisting of steroid injection is not indicated in the pediatric patient. Delayed operative release results in no joint contracture if performed by age four.

Trigger thumb in the adult has the same underlying pathophysiologic processes as the trigger

finger. The area of pathology involves the first annular pulley at the metacarpal phalangeal joint. Conservative treatment is similar to that for the trigger digit. Surgical intervention requires care not to injure the radial digital nerve, which is vulnerable during the surgical exposure through a transverse incision at the MP flexion crease of the thumb.

The importance of adequate pretreatment history has been emphasized in this review of trigger digit and thumb tenosynovitis. Conservative therapy is supported by the high percentage of "cures" that can occur, thereby avoiding unnecessary surgery. If conservative therapy fails, surgical intervention carries a 98% cure rate, barring the two most common technical complications of digital nerve injury or inadequate pulley release. ▴

This is the first in a series of monthly articles on hand conditions from the Indiana Center for Surgery and Rehabilitation of the Hand and Upper Extremity in Indianapolis.

Correspondence and reprints:
James J. Creighton Jr., M.D., *Hand Surgery Associates, P.O. Box 80434, Indianapolis, IN 46280-0434.*

References

1. Marks MR, Gunter SF: Efficacy of cortisone injection in treatment of trigger fingers and thumbs. *J Hand Surg*, 14A:722-727, 1989.
2. Bonnici AV, Spencer JD: A survey of 'trigger finger' in adults. *J Hand Surg*, 15:290-293, 1988.
3. Otto N, Wehbe MA: Steroid injections for tenosynovitis in the hand. *Orthop Rev*, 15:290-293, 1986.
4. Freiberg A, Mulholland RS, Levine R: Nonoperative treatment of trigger fingers and thumbs. *J Hand Surg*, 14A:553-558, 1989.

PUT YOUR MEDICAL CAREER IN FLIGHT.

Discover the thrill of flying, the end of office overhead and the enjoyment of a general practice as an Air Force flight surgeon. Talk to an Air Force medical program manager about the tremendous benefits of being an Air Force medical officer:

- Quality lifestyle, quality practice
- 30 days vacation with pay per year
- Support of skilled professionals
- Non-contributing retirement plan if qualified

Discover how to take flight as an Air Force flight surgeon. Talk to the Air Force medical team today. Call

**USAF HEALTH
PROFESSIONS
317-848-5830
COLLECT**



Problem solving

Roland B. McGrath, M.D.
Indianapolis

The exercise of decision analysis¹⁻⁴ has been the subject of scholarly descriptions, but less attention has been directed toward attempts to reduce the process to laymen's terms. The discipline of internal medicine includes the clinical decision making that accompanies problem solving. The information in the Cecil, Harrison, Stein, Harvey and Washington manual is complementary but not one with the decision-making process.

This article details an algorithm that has evolved during the past decade. It has been used as an effective teaching instrument and as a complement to clinical practices.

The examples selected to illustrate the components of this algorithm are pulled from clinical blood gas interpretation experiences. However, problems from any business, sport or clinical area also may be subjected to the following algorithm.

Problem identification

For a management plan to be well-conceived, the problem must be clearly stated. Triage and prioritization cannot occur consistently and effectively if the clinician does not commit to identity and alignment of problems.

Example: The patient was a 37-year-old man with diabetic ketoacidosis and diffuse interstitial infiltrates. Blood gases were $pO_2=52$ torr, $pCO_2=23$ torr and

$pH=7.10$ (room air).

Most students have identified metabolic acidemia (confirmed ketonemia) as the major problem. Therefore, management emphasis would have been on the empiric repletion of assumed insulin, volume, base, potassium and phosphate deficits. But, the highest priority should have been an abnormal (A-a) with diffuse infiltrates – adult respiratory distress syndrome. If limited to a single intervention, the best decision might have been intubation with mechanical ventilation.

A well-conceived management plan is obligately linked to proper problem selection.

Confirmation

Following problem identification, confirmation must be accomplished to limit the pursuit and treatment of artifacts.

Example: The patient was a 60-year-old woman, three days post-nephrectomy for hypernephroma. She had aortic stenosis and chronic obstructive lung disease. Blood gases were $pO_2=29$ torr, $pCO_2=47$ torr and $pH=7.40$ ($FiO_2=24\%$).

The patient was still intubated, and the physician on duty reinitiated mechanical ventilation. Was the problem ventilatory failure?

Abstract

Students and physicians sometimes struggle with the bedside decision-making process. The following text details a problem-solving algorithm that has evolved and has been tailored to and by clinical practice.

The lab test was not indicated (that is, there was no overriding clinical question), the results were not anticipated, and there was no clinical correlate. The apparent new hypoxemia was an error, a venous specimen. Errors sometimes seem routine. Multiple examples of FiO_2 , labeling, transcription, etc., errors within the hospital can be identified during ordinary surveillance.

A thoughtful clinician must examine the data and the patient to determine the validity of information presented.

Clinical context

Problem identification and confirmation are next complemented by putting the information into clinical context. Is the problem in and of itself potentially life threatening, and is there, therefore, reasonable evidence for the efficacy of an intervention without additional information? There is only a handful of such situations in patient management.

If not, is the problem clinically manifest such that treatment is mandated? Can the identified problem be shown to be symptomatic or otherwise clinically important when placed into a bedside context?

Finally, even if not life threaten-

ing and/or immediately manifest, does the natural course of the problem or its expected treatment permit projection about management needs? Can the problem be anticipated to be life threatening and/or manifest when put into clinical context?

Life threatening – Example: The patient was a 41-year-old alcoholic with esophageal varices and cardiomyopathy manifest as ventricular tachycardia. He was hypotensive, oliguric and tachypneic. Blood gases were $pO_2=74$ torr, $pCO_2=27$ torr and $pH=7.35$ (room air).

He was prepared and draped for pulmonary artery catheter insertion. After the procedure, he was apneic and pulseless and could not be resuscitated. The clinical context was shock. Shock is, of course, life threatening. To the uninitiated, the arterial blood gases (ABG) may not predict catastrophe. Clinical shock, tachypnea and partially compensated metabolic acidemia might best be initially managed with intubation and expectant ventilation.

Clinically manifest – Example: The patient had chronic obstructive pulmonary disease and anasarca. She looked relatively comfortable while sitting. Her sinus rhythm rate was 40. She was normotensive but oliguric. Her blood gases were consistently $pO_2=59$ torr, $pCO_2=69$ torr and $pH=7.19$ ($FiO_2=16\%$).

The major problem was per-

ceived to be bradyarrhythmia, and she had a favorable response (clinically and by invasive hemodynamics) to the chronotropy of isoproterenol. Because temporary transvenous pacing would have required the patient to be supine for some time and this posture was not well-tolerated, she was intubated and mechanically ventilated. With correction of the respiratory acidemia by positive pressure ventilation, her sinus rate increased to 70-80. No further intervention was needed. Respiratory acidemia was clinically manifest as bradyarrhythmia.

Projection – Example: A 74-year-old patient had intracranial hemorrhage and was intubated and ventilated. The initial ABG were $pO_2=243$, $pCO_2=40$ and $pH=7.48$ ($FiO_2=100\%$).

Corticosteroids and alveolar overventilation were elected empirically to treat presumed intracranial hypertension. The follow-up gases were $pO_2=111$, $pCO_2=17$ and $pH=7.71$ ($FiO_2=50\%$). The metabolic alkalemia must be recognized and treated aggressively with the projected addition of respiratory alkalosis.

The best management plan evolves after subjecting the confirmed problems to questions regarding significance within the specific clinical context – life threatening, adversely manifest and projected implications.

Summary

This algorithm for problem

solving is workable. Certainly, it cannot replace adequate knowledge, clinical experience and additional information from patients, texts, recent medical literature and consultants. However, this scheme for approaching problems makes decision making less burdensome because it complements other clinical skills and resources.

Whether the priority is some aberration of heart rate, blood pressure, urine volume, serum chemistry, hemoglobin, etc., the application of this decision-making model may assist physicians at problem pursuit. Simply remember identification, confirmation and clinical context (life threatening, manifest, projection) when agonizing over bedside dilemmas. □

Correspondence and reprints: Roland B. McGrath, M.D., Professor of Medicine, Indiana University Medical Center, Room 608, Regenstrief Health Center, 1001 W. 10th St., Indianapolis, IN 46202.

References

1. Sox HC: Probability theory in the use of diagnostic tests – application to critical study of the literature. *Ann Int Med*, 104:60-66, 1986.
2. Plante DA, Kassirer JP, Zaren DA, Parker SG: Clinical decision consultation service. *Am J Med*, 80:1169-1175, 1986.
3. Pauker SG, Kassirer JP: Decision analysis. *N Engl J Med*, 316:250-258, 1987.
4. Kassirer JP, Moskowitz AS, Lau J, Parker SG: Decision analysis: A progress report. *Ann Int Med*, 106:275-291, 1987.

Clinical experience with ciprofloxacin: Analysis of a multicenter study

Kambiz Karimi, M.D.
Indianapolis

Ciprofloxacin (Cipro™) is a newly approved (1987) antimicrobial that demonstrated high activity in vitro against Gram-negative and Gram-positive aerobic pathogens.^{1,2} It has excellent in vitro activity against *Enterobacteriaceae* species, *Pseudomonas aeruginosa*, *Haemophilus* and *Neisseria* species.³

Orally administered, ciprofloxacin exhibits therapeutically achievable Minimal Inhibitory Concentrations (MICs) against methicillin-resistant *Staphylococcus aureus* and is the most potent oral antimicrobial available for use against this pathogen.⁴ Therefore, ciprofloxacin has been regarded as an excellent oral alternative to injectable antibiotics.

Most of the literature reports double-blind, controlled comparative trials intended for submission to the U.S. Food and Drug Administration for marketing approval. However, these studies contain extremely restrictive inclusion and exclusion criteria and may or may not be related to how the product would perform in the day-to-day practice of medicine. Thus, an evaluation of the efficacy and safety of ciprofloxacin in day-to-day medical practice was per-

formed. The following data are reported from an open clinical multicenter study performed in Indiana.

Patients and methods

Guidelines for patients admitted into the study were established by a standardized protocol. Data were collected on brief, two-page clinical evaluation forms (CEFs) completed by the investigators. Subsequently, the CEFs were retrieved and analyzed by Oxford Health Care, Inc. in Clifton, N.J. Each physician investigator categorized all patients' infections as either lower respiratory tract, soft tissue, skin and skin structure or other. Fifteen investigators from Indiana entered 132 patients into the study. Only those patients who received ciprofloxacin alone as antimicrobial therapy were

Abstract

In a multicenter study of 132 patients treated with ciprofloxacin for a variety of infections, 35 were microbiologically proven. Of these, bacteriologic cure equaled 85.7%, while improvement equaled 11.4%; failure was 2.9%. Clinical cure equaled 65.8%, while improvement was 26.3%. Failure was reported for 7.9% of cases. A total of 46 (35.9%) infections were classified as chronic. Overall, six of the 132 patients had adverse reactions. Two were related definitely to ciprofloxacin therapy. Therapy with ciprofloxacin was discontinued in two (1.5%) patients because of adverse effects.

evaluated.

Several criteria determined patient selection. Included were: male and female inpatients or outpatients older than 18 who exhibited clinical evidence of lower respiratory tract infection, skin and skin structure infection or soft tissue infection. Excluded were: women who were pregnant, nursing or not practicing contraception; patients with known or suspected allergy to quinolone antibiotics or with known moderately to severely impaired renal function; those displaying clinical evidence of hepatic disease or requiring other concomitant antimicrobial therapy; and patients with known clinically impaired immunological function.

Physicians recorded adverse reactions, the duration and inten-

sity and the action regarding medication adjustment or outcome. Any serious or unexpected reaction was to be reported within 72 hours to Miles, Inc. The investigators used their own judgment regarding patient response to therapy and to adjust antimicrobial medication if the response was determined inadequate. Patients were allowed to receive any other medication considered necessary by the physician. The package insert acted as the guideline for prescribing information.

Bacteriology

Specimens were collected, when available, from sites of suspected infection before the administration of ciprofloxacin. Physicians also were asked to obtain a culture at the end of ciprofloxacin therapy if culturable material was available. Sensitivity analysis was performed using ciprofloxacin disks provided by Miles Inc. For patients with respiratory tract infections, sputum was processed for Gram stain and culture whenever possible. However, many lower respiratory tract infections and closed wound infections precluded collection of a culture specimen.

Results

A biostatistician at Oxford Health Care Inc. supervised data processing. The statistics generated were descriptive in nature and tabulated exactly from the CEF. Complete as well as incomplete CEFs were included in the results, regardless of whether the physician followed every protocol. All patients were included in the analysis of clinical efficacy; however, only those patients who had a positive culture with an identified organism were included in

the evaluation of bacteriologic efficacy.

No patient who received any type of antimicrobial concomitantly with ciprofloxacin was evaluable for either safety or efficacy. All 132 patients, excluding those who received a concomitant antimicrobial, were included in the analysis of tolerance to the drug and of adverse effects of treatment. The data indicated that no patient received a concomitant antimicrobial in this study. Skewed data were eliminated when necessary.

A total of 132 patients (50 men and 76 women reported) aged 1 to 95 years (mean age 53 years) received 0 mg to 2000 mg of ciprofloxacin per day (mean dosage 1001 mg/day) for three to 15 days (mean duration 9.3 days).

The spectrum of infections treated comprises a variety that would be expected in a multicenter trial with 15 participating physicians from across the state. For the total patient population, most infections were classified as skin and skin structure (29.8%), followed by lower respiratory tract

(22.8%), soft tissue (14.9%), urinary tract (6.1%) and other (26.3%). Most patients treated, 88.3%, were outpatients; hospitalized patients accounted for only 11.7% treated. Twelve patients were continuing ciprofloxacin therapy at the time of evaluation.

Patients were evaluated for both clinical and bacteriologic efficacy. All patients who received one dose of ciprofloxacin were considered for the evaluation of the clinical efficacy of therapy, regardless of whether a culture was obtainable. Physicians were asked to rate the final clinical outcome of the infection by indicating cure, improvement or failure. Final clinical outcome of therapy with ciprofloxacin for each diagnostic category is summarized in Table 1. Clinical cure was achieved in 65.8% and improvement in 26.3% of cases. Overall clinical care plus improvement equaled 92.1% of treated infections. Only nine patients (7.9%) had outcomes considered clinical failures by the treating physician.

Patients who had an initial culture that identified a pathogen

Table 1

Final clinical outcome classified by location of infection*

	Percentage of total (number of points)			
	Cure	Improve	Failure	Cure & Improve
Lower respiratory tract	61.5% (16)	30.8% (8)	7.7% (2)	92.3%
Soft tissue	76.5% (13)	17.6% (3)	5.9% (1)	94.1%
Skin/skin structure	55.9% (19)	35.3% (12)	8.8% (3)	91.2%
Urinary tract	57.1% (4)	28.6% (2)	14.3% (1)	85.7%
Other	76.7% (23)	16.7% (5)	6.7% (2)	93.3%
Total	65.8%	26.3%	7.9%	92.1%

*Data unavailable for 18 patients

were included in the analysis of bacteriologic efficacy. Cultures were obtained in 58 patients initially. Of these, 35 identified the specific bacterium cultured and the outcome of therapy. In eight cases, the outcomes were unknown. Negative cultures and cultures indicating normal flora were not evaluable. Within these guidelines, for 35 of 132 patients, the infection was microbiologically proven. Of the evaluable patients, bacteriologic cure equaled 85.7%, while improvement comprised 11.4%. Cure plus improvement was 97.1%. Failure was reported in only 2.9% of cases. Interestingly, bacteriologic outcome was equal to or better than the clinical outcome.

For the positively identified pathogens, most infections were classified as "other" (33.3%), followed by skin and skin structure (28.6%), lower respiratory tract (21.4%), urinary tract (9.5%) and soft tissue (7.1%). Although urinary tract infection was not a category on the CEF, it was statistically separated for discussion and analysis. The 16 reported pathogens and their bacteriologic outcomes are summarized in Table 2.

Overall, 46 (35.9%) infections were considered chronic. Both the final clinical and bacteriologic outcomes were examined for the chronic infections. For 38 patients, data were available as to the final clinical outcomes. Twenty-two (57.9%) were cured, 12 (31.6%) improved and four (10.5%) failed. For 11 patients, information was available as to bacteriologic outcome. Eight (72.7%) were cured, two (18.2%) improved and one (9.1%) failed.

Adverse drug reactions (ADRs)

All 132 patients treated with

Type of organism	Cure	Outcome Improve	Failure
<i>E. coli</i>	8	0	0
<i>Staphylococcus aureus</i>	7	1	1
<i>Enterobacter</i> species	4	0	0
<i>Streptococcus</i> species	3	0	0
<i>Enterobacter cloacae</i>	2	0	0
<i>Proteus vulgaris</i>	1	0	0
<i>Pseudomonas aeruginosa</i>	2	2	0
<i>Staphylococcus epidermidis</i>	1	0	0
<i>Streptococcus</i> group	1	1	0
<i>Lactobacillus</i> species	1	0	0
<i>Streptococcus viridans</i>	1	0	0
<i>Enterococcus</i>	2	0	0
<i>Haemophilus influenzae</i>	1	0	0
<i>Aeromonas hydrophila</i>	1	0	0
<i>Staphylococcus</i> species	1	0	0
<i>Bacillus</i> species	1	0	0

ciprofloxacin were included in the evaluation of tolerance and adverse effects related to therapy. Of the 132 patients, 126 reported no side effects (97%). Seven ADRs were observed; one case each of increased sweating, minimal nausea, perinephrine abscess, pulmonary edema, stomach upset, tiredness and a vaginal yeast infection. Gastrointestinal symptoms comprised two of seven ADRs. No headaches or rashes were reported. Only two of the ADRs were considered definitely drug-related: the stomach upset and pulmonary edema. Four ADRs were uncertainly related; the case of perinephrine abscess was classified as definitely not related. In the case of pulmonary edema, an infrequent side effect of ciprofloxacin seen in less than 1% of cases, the patient was admitted

for right lower lobe pneumonia. The physician indicated that the ADR resolved with drug therapy. Ciprofloxacin therapy was maintained in four cases despite side effects. Only in two patients (1.5%) was therapy discontinued because of adverse reactions.

Abnormal laboratory findings were reported for 32 patients; in six cases, the specific test and its finding were not indicated. The remaining 26 abnormal laboratory reports were not related to administration of ciprofloxacin, for example, reports of chest x-ray confirming pneumonia and pyuria as abnormal laboratory results. These findings were not indicative of adverse effects stemming from the use of ciprofloxacin. In one case, leukopenia was reported; however, its severity and relationship to ciprofloxacin therapy were

not indicated. This patient did not have any ADRs reported. No reports of crystalluria were found.

Discussion

A relatively new class of antimicrobials, the fluoroquinolones, has emerged as a powerful new resource for physicians to treat a broad spectrum of infections. Ciprofloxacin is a potent member of this drug classification.

Analysis of this multicenter study indicates that there is a good correspondence between the in vitro activity of ciprofloxacin and the clinical efficacy of treatment with ciprofloxacin. Clinical cure was observed in 65.8% of all infections. Cure plus improvement equaled 92.1% of all cases.

Bacteriologic efficacy (cure plus improvement) equaled 97.1%, while clinical efficacy was 92.1%. For 38 chronic infections with a known clinical outcome, 57.9% were cured, 31.6% improved and 10.5% failed. For 11 chronic infections, the known bacteriologic outcome was 72.7% cured, 18.2% improved and 9.1% failed. Chronic, as well as acute, infections responded extremely well to ciprofloxacin therapy.

The safety of ciprofloxacin was assessed for all patients. Overall, therapy with ciprofloxacin was extremely well-tolerated. Adverse experiences were infrequent and generally mild. Treatment with ciprofloxacin had to be discontinued for only two patients because of adverse experiences.

Furthermore, physicians reported 40 classifications of medications that were administered concomitantly with ciprofloxacin.

Diuretics, carditonic, antihypertensives and hypoglycemics headed the list. Still, adverse reactions were minimal. No patients had an allergic reaction to ciprofloxacin, nor were any incidents of theophylline toxicity reported.

Conclusion

The isolation of etiologic bacteria is difficult, especially in infections of the lower respiratory tract and in closed wound infections. Clinical results reported here include cases with and without obtained culture and sensitivity results. Bacteriologic efficacy was determined by culture and sensitivity. The main purpose of the study was to gather a large amount of safety and efficacy data on ciprofloxacin, after its FDA approval, as used in a day-to-day clinical setting to confirm the results in smaller, more restrictive trials used for FDA approval of the product.

The present clinical experience has shown that a dosage of 500 mg to 1500 mg of ciprofloxacin therapy per day (up to 2000 mg/day in this study) is effective in a broad spectrum of infections, including *E. coli*, *Staphylococcus aureus*, *Proteus* species, *Haemophilus influenzae*, *Streptococcus* species, including *S. pneumoniae*, *Pseudomonas* species and *Staphylococcus epidermidis*. In addition to an overall clinical efficacy (cure plus improvement) of 92.1%, the bacteriologic efficacy in 35 patients was 97.1%.

Furthermore, the safety of ciprofloxacin was excellent. Adverse reactions were generally mild,

gastrointestinal in nature and infrequent. It appears that ciprofloxacin offers ease of administration as well as high efficacy and safety in the treatment of a wide variety of infections that might well have previously required parenteral therapy and/or hospitalization. □

Correspondence: Kambiz Karimi, M.D., 7711 Cedar Ridge Lane, Indianapolis, IN 46278.

Clinical investigators included: H.M. Manifold, M.D., Bloomington; Randall R. Stoltz, M.D., Evansville; Frank A. Snyder, M.D., Bremen; Robert A. Penn, M.D., Gary and Hobart; William C. Houser, M.D., Evansville; David M. Hayes, M.D., Evansville; Joanne Martin, M.D., Brookville; Robert E. Robertson, M.D., Sellersburg; Steven A. Gatewood, M.D., Elwood; and Patricia M. Cackowski, M.D., Indianapolis.

Data were contributed by: Robert A. Brewer, M.D., Logansport; Andrew S. Chung, M.D., Anderson; Robert N. Falge, M.D., Fort Wayne; and Jack Lenox, M.D., Lebanon.

References

1. Sanders CC, Sanders WE Jr., Goering RV: Overview of preclinical studies with ciprofloxacin. *Am J Med*, 82:Suppl 4A:2-11, 1987.
2. Barry AL, Jones RN: In vitro activity of ciprofloxacin against Gram-positive cocci. *Am J Med*, 82:Suppl 4A:27-32, 1987.
3. Lyon MD, Smith KR, Saag MS, Cobbs CG: Brief report: In vitro activity of ciprofloxacin against *Neisseria gonorrhoeae*. *Am J Med*, 82:Suppl 4A:40-41, 1987.
4. Data on file, Miles, Inc., Pharmaceutical Division.

Eosinophilia myalgia syndrome: Case report

Linda F. Abels, M.D.
Thomas G. Slama, M.D.
Indianapolis

Eosinophilia myalgia syndrome (EMS) is a newly identified clinical illness characterized by eosinophilia and debilitating myalgias.¹⁻³ Because this syndrome represents a new clinical disorder, diagnostic criteria have not been developed. Many of the cases reported to the Centers for Disease Control (CDC) as EMS subsequently have been diagnosed as trichinosis, eosinophilic myositis, eosinophilic fasciitis and polyarthritis nodosa.²

Current CDC recommendations for identifying a case of EMS include: 1) an absolute eosinophil count of greater than or equal to 1,000 cells per mm³; 2), generalized myalgia severe enough to interfere with the ability to carry out normal daily activities; and 3) the absence of any infection that could account for symptom 1 or 2.²

Although a specific, causal relationship has not been established, the association of EMS with the amino acid L-tryptophan (LT) is striking.³ L-tryptophan is an essential amino acid found in dietary protein used in the treatment of insomnia, depression and premenstrual syndrome. It has been implicated in 98% of the completed case reports returned to the

CDC. As of Dec. 6, 1989, only nine of the 730 cases of EMS have been in Indiana. Four patients who have used LT and exhibited the symptoms of EMS have died, but only one death has been directly attributed to EMS.⁴

EMS has a rather insidious onset over a period of weeks. Patients commonly have severe myalgias and fatigue and occasionally have arthralgias, dyspnea, cough and skin rashes. Congestive heart failure and cardiac arrhythmias have been reported.¹⁻⁴ The physical exam may demonstrate maculopapular, vesicular or urticarial rashes, occasional hepatomegaly, rarely splenomegaly and lower extremity edema.⁴

Laboratory evaluation is remarkable for marked eosinophilia with absolute counts greater than 2,000 cells per mm³ common and values as high as 10,000 to 30,000 cells per mm³ reported.⁴ Mild elevation in liver function tests, arterial hypoxia, hyperplasia of eosinophilic precursors in bone marrow and perivascular inflammatory infiltrates are the most common laboratory and histopathologic abnormalities.

Two cases of EMS have been described at St. Vincent Hospital in Indianapolis. Both patients were users of LT-containing substances purchased from the same manufacturer. The first patient, a 32-year-old white woman, a regis-

tered nurse, complained of fatigue, malaise, myalgias, arthralgias, anorexia, a non-productive cough and a low-grade fever when she was seen Oct. 4, 1989. She reported a two-month history of LT use, averaging 500 mg three times a day. Initial laboratory evaluation revealed a white blood cell count (WBC) of 16,100 cells per mm³ with an absolute eosinophil count of 7,535. Additional abnormal laboratory studies included lactic dehydrogenase (LDH) of 375 international units per liter (IU/L) and aldolase of 15 milliunits per milliliter (mU/mL). Trichinella antibodies, Sjogren's antibodies, hepatitis screens and antinuclear antibodies were negative or non-reactive. Pulmonary function tests revealed decreased lung volumes consistent with a restrictive pattern and a diminished diffusion capacity. Transbronchial lung biopsy revealed an interstitial eosinophilic inflammatory infiltrate without intra-alveolar eosinophilia.

The patient was treated with tapering doses of steroids and discharged within three weeks. Although she has noted significant improvement, myalgias and moderate eosinophilia persist.

The second patient was a 30-year-old white man, admitted Oct. 20, 1989, with a three-and-a-half-week history of a dry cough, myalgias, arthralgias, weight loss and rash. He had taken 1.5 to 2.0

gm of LT per day for three and a half months. On admission, his WBC was 24,000 cells per mm³, with an absolute eosinophil count of 5,668. Other abnormal laboratory values included an LDH of 304 IU/L, serum glutamic oxaloacetic transaminase (SGOT) of 88 IU/L and serum gamma glutyl transferase (GGT) of more than 500 IU/L. Trichinella antibodies, hepatitis screens and antinuclear antibodies were negative or non-reactive. A muscle biopsy demonstrated perivascular inflammatory infiltrates, and the electro-myogram was abnormal, revealing denervation potential. This patient also was treated with a tapering dose of steroids and reported symptomatic improvement. Although the patient has improved significantly, myalgias and fatigue persist.

The significance of this syndrome has not been established. Studies have been guided by information from a previous out-

break of eosinophilia associated with pneumonitis in 1981 in Spain. This was the so-called toxic oil syndrome.⁵

The role of LT and its pathogenicity must be defined. The question of a contaminant or impurity in LT-containing compounds has been raised, but none have been found. The U.S. Food and Drug Administration recalled Nov. 17, 1989, products in which LT is the primary or major component.²

Clinical studies are being conducted to further investigate the role of LT. The long-term effects and reversibility of symptoms are being studied. The appropriate treatment remains unclear. Concise, accurate case reports are essential to identify the causes of this disorder. Physicians must be aware of the existence of EMS in Indiana. If a patient has typical symptoms and physical findings and has a presumptive diagnosis of EMS, a source or sources of LT should be discontinued at once. □

Drs. Slama and Abels are with St. Vincent Hospital in Indianapolis.

Correspondence and reprints: Thomas G. Slama, M.D., 8424 Naab Road, 2D, Indianapolis, IN 46260.

References

1. Centers for Disease Control. Myalgia syndrome - New Mexico. *MMWR*, 38:765-767, 1989.
2. Centers for Disease Control. Myalgia syndrome and L-tryptophan containing products - New Mexico, Minnesota, Oregon and New York. *MMWR*, 38:785-788, 1989.
3. Centers for Disease Control. Update: Eosinophilia - Myalgia syndrome associated with ingestion of L-tryptophan - United States. *MMWR*, 38:842-843, 1989.
4. Centers for Disease Control. Interim information and guidance for physicians on eosinophilia - myalgia syndrome. 1989.
5. Kilbourne EM, Rigau Perez JG, Heath CW Jr., et al: Clinical epidemiology of toxic-oil syndrome: Manifestations of a new illness. *N Engl J Med*, 309:1408-1414, 1983.

Look-alike and sound-alike drug names

Category:	FLURBIPROFEN	FENOPROFEN
	Nonsteroidal anti-inflammatory agent	Nonsteroidal anti-inflammatory agent
	Brand name: Ansaid, Upjohn	Nalfon, Dista
	Generic name: Flurbiprofen	Fenoprofen calcium
Dosage forms:	Tablets	Capsules, tablets
Category:	CARDENE	CERADON
	Calcium channel blocker	Cephalosporin
	Brand name: Cardene, Syntex	Ceradon, Takeda
	Generic name: Nicardipine HCl	Cefotiam
Dosage forms:	Capsules	Intravenous

■ drug names

Benjamin Teplitzky, R. Ph.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions.

Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors. □

Improving communications can prevent malpractice

(Editor's note: The following article is provided as a service of Physicians Insurance Company of Indiana and was prepared by Barbara Killila, PICI's director of education/risk management.)

Today the malpractice situation is not if you will be sued but when you will be sued. Physicians, though, can help themselves by realizing that even a medically competent physician can risk being sued simply by a lack of understanding between the physician and the patient.

In his book, *Belli: For Your Malpractice Defense*, noted attorney Melvin Belli says instances occur in which patients have suffered harm, or perceived they have, but after review there was little to substantiate the claim. It would seem in these instances that either a lack of communication or a misperception by the physician or the patient – and not malpractice – is the problem.

In the meantime, though, it takes the physician's time, and possibly the time of the office personnel, insurance carrier personnel and the defendant's attorney. This can be inconvenient and a financial burden for the physician.

Some communication breakdowns can be prevented:

Misunderstandings. Misunderstandings can occur when the

patient is frightened or confused, and the doctor is too busy to communicate clearly.

Example: An older woman was admitted to the hospital for a biopsy under general anesthetic. Complications did not occur during the procedure, and findings were negative. Immediately after the procedure, the physician informed the patient of the findings, but he did not contact the patient's husband in the waiting room. Afterward, the patient remembered very little of the con-

received a bill for \$475 for the services of one physician. A review of this case showed that the standard of care was met.

Non-compliance with medical advice. Some patients do not follow medical advice. In these incidents, the physician's documentation of findings in the patient's medical records becomes vitally important to defending the claim.

Example: A physician documented that he instructed an obese cook, who had high blood pressure and was a heavy smoker, to lose weight and stop smoking. The patient did not comply, had to have emergency surgery and died of pulmonary complications. The family sued the surgeon and pri-

mary physician, alleging failure to care for the patient. Documented patient non-compliance assisted with the defense of the claim.

The preceding examples showed cases in which there was doctor/patient communication breakdown. There are some ways to prevent the breakdown from occurring:

Don't ignore the patient.

Example: A middle-aged woman who was difficult and demanding complained of arm and chest pain and shortness of breath. A cardiac work-up was completed, and medications were prescribed. She developed painful side effects from the medica-

***In his book,
Belli: For Your Malpractice Defense,
noted attorney Melvin Belli says instances
occur in which patients have suffered harm,
or perceived they have, but after review
there was little to substantiate the claim.***

versation, and she and her husband were upset that the doctor did not take the time to speak with them.

Revenge. Some patients are out for revenge, and their complaints have nothing to do with medicine.

Example: A banker was hospitalized for a colon resection. One of the five physicians involved in his case assured him he would be home within two weeks. Because of a bowel obstruction and other complications, the patient's hospital stay lasted seven weeks. He wanted to sue because: He felt he was "promised" that he would be out sooner than he was, and, while he was still hospitalized, he

tion, complained repeatedly to the physician to no avail and wrote a letter that the physician ignored. Within a few weeks, the woman died of a massive stroke. The family filed a claim, implying the physician's indifference led to her death.

Don't be insensitive, especially in remarks made to the patient.

Example: A woman complained of a recent onset of dizziness. The physician jokingly told her not to worry because there were several "dizzy dames in the area." She did not care for this statement and said so. The physician told her that her condition was probably the result of wax impacted in her ears. This was the case, but, while performing the procedure, he scraped the ear lobe causing slight pain. The woman, incensed by his first remark, used the scrape as the basis for a claim.

Listed below are tips to help physicians identify patient behaviors that could lead to trouble:

Be aware of patients who change physicians during a specific course of treatment. There may be a valid reason for this, such as a patient who moves out of town, but there is always the possibility of patient dissatisfaction with your treatment or even you.

Example: A family practitioner had been treating a retired man for severe arthritis for a long time. The patient had begun taking a new, non-steroidal medication. Within a few weeks, the physician received a request to transfer the patient's records to another family practitioner. When the physician called to check on this request, he was told the patient was upset and thought he was being killed.

The family practitioner called the patient, but he wouldn't listen. The patient replied he thought the drug would "cure me, not make my guts raw" and hung up. Later the family practitioner made an unannounced visit to the man's house. By speaking to the man in person, he was able to clarify the need to adjust new medications for each patient's needs. This patient did not return to the family practitioner, but he did not file a lawsuit.

This is an example of how a gesture of concern, such as a house call, helps calm an irate patient. The physician should make sure the patient has realistic expectations of the results of treatment. The physician also should make sure patients understand the possible side effects of medications and when to call the doctor.

Be aware of patients who are secret grumblers. These are patients who complain not to you, but to your staff, about real or imaginary complaints.

Example: An internist received a request from a lawyer for the records of a patient with hypertension. The physician had not heard of any specific complaints about treatment from the patient, but the patient had at times reduced his medications and altered his diet. When the doctor asked the staff, they described several complaints that the patient mentioned. The patient had expressed some concerns about the side effects he was having and was not totally confident about the physician's treatment. The internist referred the patient to another internist for a second opinion, which helped alleviate the concerns of the patient.

The lesson from this example is that physicians should communicate clearly **not only** with their patients **but also** with their staffs.

Be aware of normally cheerful patients who suddenly turn sour.

The person who makes a wise-crack or joke may be masking a hidden fear. The trouble occurs when the physician is not aware that jokes are replaced with surly responses and suspicious glances.

Example: An internist had been the primary physician for a female teacher for seven years. Gradually, the patient's jovial nature changed, and her medical complaints became vague. The physician believed the patient was in good health. Later, the physician heard that the patient criticized him while she was at a PTA meeting. The next time the patient visited his office, the physician asked her about these comments. The patient replied, "Yes, you know I have a history of breast cancer in my family and you haven't done a thing about it." Only then did the physician learn the patient had noticed a small lump in her breast but had been too fearful to mention it to him. Instead, she made vague complaints and left it up to the physician to decide what she was really saying. Tests later revealed the woman had fibrocystic disease.

If the lump in this case had been cancerous, the physician could have been sued for failure to promptly diagnose the illness.

Physicians should be alert for these warnings from patients and remember to report to their professional liability carrier, on a precautionary basis, any situations that could lead to a lawsuit. □

Spectrum Emergency Care, Inc.

We currently have part-time, full-time and Medical Director positions available in various low to moderate volume Emergency Departments throughout Indiana. We can offer you a flexible schedule from month to month with no over-head, office expenses and no on-call duty. Physicians receive a competitive hourly rate and the best occurrence malpractice insurance in the industry. Full-time physicians (those who provide 48 hours per week) may also receive relocation assistance, CME funds, and Indiana licensing fee reimbursement. In addition, Medical Directors are offered administrative orientation and training, health, life, dental and disability insurance and a 401k retirement plan. Call us today for more information and an application.

Joan E. Logel, Physician Recruiter

1-800-325-3982, ext. 3087

ARA
services

SPECTRUM EMERGENCY CARE, Inc.

P.O. Box 27352, St. Louis, MO 63141



CANCER PARANOIA?

Diet. The sun. Radon.

It seems just about every day there's a new cancer warning. No wonder people are getting a little crazy. But there is a simple way to take control of the situation. And your life.

Call the American Cancer Society's toll-free information line. Our people will answer any questions you have about prevention or detection. No one has more complete and up-to-date information.

We'll give you the truth. The facts. The personal guidance to do what's right.

**CALL 1-800-ACS-2345
WE'LL EASE YOUR MIND.**





SNAKEROOT

EXTRACT

PUBLISHED BY THE
INDIANA MEDICAL HISTORY MUSEUM AND
THE INDIANA HISTORICAL SOCIETY

NUMBER 17

APRIL, 1990

MUSEUM OPENS EXHIBIT GALLERY

The Indiana Medical History Museum recently opened a gallery for changing exhibits within the historic Old Pathology Building. Throughout the year, the museum plans to feature exhibits which highlight various facets of the health sciences.

"A TREK into Medicine's Past: Technology, Research, Experimentation, and Knowledge" is the museum's first featured exhibition within this gallery. Beginning in the 1800s, the invention of a number of diagnostic instruments aided the physician's ability to accurately diagnose disease. These instruments allowed the doctor to "see" inside the human body by extending his senses of sight, smell, hearing, and touch. The exhibit explores the history of this new technology and how it altered the practice of medicine by creating a more impersonal, yet scientific patient-physician relationship.

Featured in the exhibit are a number of photographs and a variety of early diagnostic instruments. Some of the more interesting artifacts in the exhibit include a replica of the first stethoscope (invented in 1819 by French physician René-Théophile-Hyacinthe Laënnec), an 1869 Loring ophthalmoscope (which allowed the doctor to obtain a better view of the retina than previous ophthalmoscopes), a Bowles patented stethoscope (which had an improved bell and diaphragm for listening to sounds within the chest), and a 1910 Thomson and Plaster x-ray unit.

The museum is located at 3000 West Washington Street, Indianapolis, IN 46222 (on the grounds of Central State Hospital). The museum is open on Wednesdays from 1 to 4 p.m. and on other days by appointment. Admission is free. For more information, call (317) 635-7329.

SOCIETY RECEIVES RARE MINUTE BOOK

The most interesting documents often surface in the most unusual locations. Such is the case of the minute book of the Sydenham Medical Society of the Medical College of Indiana. Don Eicks, owner of Imperial Auto Parts, Inc., of Indianapolis, found this unique manuscript in a wrecked automobile and donated it to the Indiana Historical Society.

This rare minute book records the activities of a student medical association from the state's longest-lived private medical school, the Medical College of Indiana. Physicians organized the Medical College of Indiana in 1869. During its early years, the school briefly affiliated with Indiana University. It later enjoyed a long-term affiliation with Butler University, as that institution's medical department.

The school was proprietary in nature, i.e., it was supported solely by students' tuition. By the early twentieth century, private funding for medical education was inadequate to teach modern, scientific medicine.

(continued on Page 3)



Artifacts in the Indiana Medical History Museum's exhibit, A TREK into Medicine's Past.

MUSEUM EXPANDS HOME REMEDY COLLECTION

During the early nineteenth century, a wide variety of alternative medical systems arose challenging the traditional medical therapies of bloodletting and purging. These alternative remedies appealed to the general public not only because they employed milder remedies but also because they could be administered by the patient rather than the physician.

The homeopaths, however, were one sect which resisted the trend toward domestic medicine. Yet, even the homeopaths could not completely ignore the demands of the market for home treatment. The Indiana Medical History Museum has several domestic homeopathic cures in its collection. Recently J. Edward Bourne of Indianapolis enhanced that collection with a donation that includes remedies from the Humphreys's Specific Homeopathic Medicine Company and a rare druggist's cabinet for those medicines.

Homeopathic medicine first appeared in the United States in 1825. By the Civil War, it had grown into a major medical sect with 2,500 homeopathic physicians. Homeopathic physicians believed in the healing power of nature and the doctrine of "like cures like." That is, if a drug were administered to a healthy patient and that patient exhibited symptoms of a particular disease, then the drug could be used to cure that disease. Moreover, they believed in very small doses of any medicine. (For more information on homeopathic medicine, see



Humphreys's homeopathic medicine cabinet. In the collection of the Indiana Medical History Museum.

the October 1987 issue of *Snakeroot Extract*.)

Homeopathic physicians, unlike those practicing other forms of alternative medicine, were well trained. Homeopaths believed domestic medicine's role should be limited to providing medical treatment for minor ailments and medical aid when a physician was unavailable.

Despite the homeopaths' reluctance to embrace domestic practice, home medical kits and home remedy books appeared early on the homeopathic medical scene. Constantine Hering, an Austrian physician, developed the first homeopathic domestic medical kit. In 1835, he published *The Homeopathist, or Domestic Physician*.

With this he sold a small medical kit which contained numbered vials of medicine. Once the patient made a diagnosis, he or she merely took the pills which had the correct number on them. The kit and the book retailed for five dollars.

Making a correct diagnosis of the disease was often difficult, but fortunately even an incorrect diagnosis was not fatal. Homeopathic medicines were so mild and the dosage so small that even administering the wrong remedies would not harm the patient.

Nonetheless, Frederick Humphreys, one of the largest producers of domestic homeopathic medicine, believed that simplifying diagnosis would increase the sale of domestic homeopathic medical kits. He refuted the major homeopathic tenet that one medicine should be administered at a time. Instead, he recommended combinations of various remedies for a given disease (depending on the symptoms). Humphreys started his own company, the Specific Homeopathic Medicine Company, and produced kits and home remedy books in several price ranges.

Humphreys's remedies were available in drugstores, and the Specific Homeopathic Medicine Company offered special display cabinets for them. The cabinets contained numbered drawers to store the appropriately numbered remedies.

(continued on Page 4)



An early trademark for the Specific Homeopathic Medicine Company.

Snakeroot Extract is a joint publication of the Indiana Historical Society's Medical History Committee (315 West Ohio Street, Indianapolis, Indiana 46202) and the Indiana Medical History Museum (Old Pathology Building, 3000 West Washington Street, Indianapolis, Indiana 46222). The newsletter is mailed to members of both the committee and the museum.

Submit all items for publication in the newsletter and inquiries about membership information to Katherine Mandusic McDonell, Managing Editor, c/o Indiana Historical Society, 315 West Ohio Street, Indianapolis, Indiana 46202.

Snakeroot Extract derives its name from the white snakeroot, a plant that is significant in Indiana medical history. For years, a mysterious disease called milk sickness plagued early Hoosiers. There were many theories as to the disease's cause, but the actual cause remained unknown until the 1920s. At that time, the disease was traced to the white snakeroot plant or, rather, to the consumption of milk from cows that had eaten it. The plant contains the poison tremetol.

ISSN 0743-6033

SOCIETY RECEIVES MINUTE BOOK

(continued from Page 1)

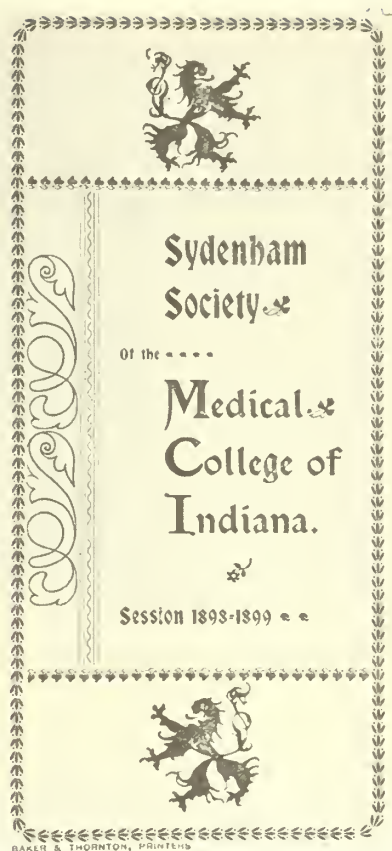
Requirements for medical schools included laboratory facilities, hospitals, and full-time faculty. To provide these necessities, medical schools looked to state government for funding. For this reason, the Medical College of Indiana in 1905 joined with the Central College of Physicians and Surgeons to become the Indiana Medical College, a part of the School of Medicine of Purdue University. In 1907, the department merged with the Indiana University School of Medicine.

Because of the inadequacies in the medical education system during the late nineteenth century, medical students often enhanced their formal training by attending supplemental lectures or studying abroad. Student medical societies or associations also helped improve their medical training.

Medical College of Indiana students founded a medical society in 1875 and named it after Thomas Sydenham (1624-1689), a famous English physician who believed that doctors should rely on experience and observation rather than scientific theories. Sydenham is best known for his descriptions of malarial fevers, gout, scarlatina, measles, dysentery, chorea, and hysteria. In terms of therapeutics, he popularized the use of Peruvian barks (from which quinine is derived) for malarial fevers.

The major purpose of the society was to discuss essays on medical topics and promote medical education. The society also allowed the students to become "proficient in debate, in parliamentary usages, writing, and the presentation of papers." In addition, the society existed to prepare students for "taking prominent parts in local and state societies." The Sydenham Society boasted a large membership. Membership rolls for the organization are included in the minute book.

The society met weekly at the Medical College of Indiana. The meetings were formal, black-tie events. Students devoted a portion of each meeting to the business of the society, including membership reports. Occasionally, the society took



Program for the Sydenham Society. In the collection of the Indiana Historical Society.

disciplinary action against one of its members. In 1879, for example, one member faced the charge that he had "outrageously insulted a fellow member and maliciously caused his arrest knowing at the time that the charge upon which the gentleman was arrested was particularly false in every particular."

(continued on Page 4)

MEG LITTLEJOHN JOINS MUSEUM STAFF

Meg Littlejohn recently joined the staff of the Indiana Medical History Museum. Littlejohn will serve as the museum's administrative assistant. She has a bachelor's degree in history from St. Mary-of-the-Woods College in Terre Haute and is presently pursuing a Master's degree in educational psychology from Indiana University. Previous to joining the museum staff, she worked at the Indiana Historical Society. There she helped index the Society's architectural records.



Meg Littlejohn

ENCYCLOPEDIA OF INDIANAPOLIS WILL INCLUDE HISTORY OF HEALTH CARE

The POLIS Research Center at Indiana University-Purdue University, Indianapolis, is preparing the Encyclopedia of Indianapolis, a multi-disciplinary volume intended to cover all aspects of the city's history and culture. The staff welcomes suggestions of topics and contact with potential contributors for this comprehensive reference work. A portion of this volume will be devoted to the history of medicine and health care in Indianapolis. Please send

suggested topics, a brief explanation of their significance, expressions of interest in preparing entries, and a summary of qualifications to: Encyclopedia of Indianapolis, Cavanaugh Hall 301, 425 University Boulevard, Indianapolis, IN 46202-5140 [Telephone: (317) 274-2455]

MUSEUM EXPANDS COLLECTION

(continued from Page 2)

A chart on the back of the cabinet aided the druggist in prescribing the necessary remedy. Bourne donated one such cabinet to the museum. A retired district sales manager from Squibb, Bourne acquired it from a one-hundred-year-old Evansville drugstore. Over the years, Bourne also collected a number of other pharmaceutical items, which he has donated to the museum.

Some of the manufacturers of homeopathic remedies had neither the sanction of homeopathic doctors nor the scruples of the early promoters of domestic homeopathic medicine. Such was the case of products produced by the Munyon Remedy Company, which claimed to have "a Munyon Pill for Every Ill." Munyon asserted far-reaching claims about his remedies.

During the late nineteenth century, the regular or orthodox medical



Prescription chart on reverse of homeopathic medicine cabinet.

profession attempted to assimilate homeopaths into its ranks. By the 1930s and 1940s, the number of practicing homeopaths had dwindled. Domestic homeopathic medicine, however, remained on the market.

SOCIETY RECEIVES MINUTE BOOK

(continued from Page 3)

Almost every week the students either heard a paper or listened to a debate. Students discussed a wide variety of subjects including whether cathartics were better than mercurials in the treatment of fevers, whether bloodletting was an appropriate treatment in puerperal convulsions, and whether bacteria were the cause or result of infectious disease. Occasionally, the medical students heard a paper on the history of medicine. The minute book records the details of these meetings up until 1888. The Sydenham Society continued meeting until the college became part of the medical department of Purdue University in 1905.



INDIANA HISTORICAL SOCIETY
INDIANA MEDICAL HISTORY COMMITTEE
315 WEST OHIO STREET
INDIANAPOLIS, IN 46202

COMMITTED TO EXCELLENCE



**PRESIDENT'S
ACHIEVEMENT
AWARD**

**Presenting
the winners of the 1989
Roche President's Achievement Awards**

Roche Laboratories is proud to honor these outstanding sales representatives, chosen for their unparalleled dedication to the healthcare field, professionalism and consistent high level of performance. Please join us in congratulating these exceptional individuals.



Lynn Ellen Bechtold



William E. Bissey



Jeanne Marie Gadiant



Ronald A. Kobe



D. Russ Williams

Turn to the following page and find out how your award-winning Roche representative can help both you *and* your patients.

Your Roche Representative Would Like You To Have Something That Will...

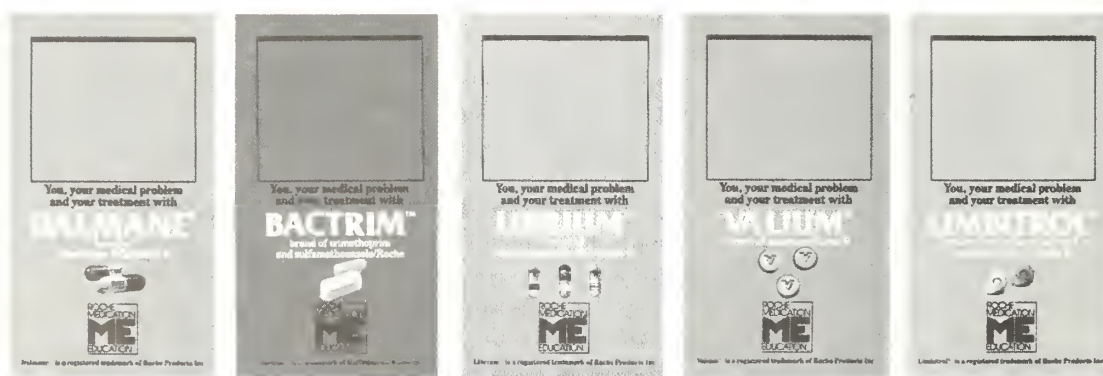


- ... improve patient satisfaction with office visits.
- ... improve patient compliance with your instructions.
- ... reduce follow-up calls to clarify instructions.

Roche product booklets ...

- offer a supplement to, not a substitute for, patient contact.
- support your specific instructions to the patient.
- provide a long-term reinforcement of your oral counseling.
- are available in *Spanish*.

Because you are the primary source of medical information for your patients, we invite you to look over the Roche product booklets shown below. Ask your Roche representative for the new catalog brochure of patient education materials and for a complimentary supply of those booklets applicable to your practice, including the WHAT IF Book in large type.



Working today for a healthier tomorrow

Benefits available to members of the Indiana State Medical Association and their employees through expanded ISMA group sponsored Lincoln National Life health insurance coverage:

MEDICAL PLAN 1

- 365 Days of Inpatient Hospital Care
- 100% payment semi-private or hospital ward room including the cost of blood
- 365 Days In-Hospital Medical Care
- Reasonable and Customary allowances for surgery, maternity, general anesthesia, medical visits, and radiation therapy
- \$500 Supplemental Accident
- Unlimited Major Medical Benefits

MEDICAL PLAN 2

- Comprehensive Major Medical expense protection — \$500 Calendar Year Deductible
- Unlimited Maximum Benefits

MEDICAL PLAN 3

- Comprehensive Major Medical expense protection — \$250 Calendar Year Deductible
- Unlimited Maximum Benefits

MEDICAL PLAN 4

- Low cost comprehensive Major Medical expense protection — \$2,000 Calendar Year Deductible
- Unlimited Maximum Benefits

MEDICAL PLAN 5

- Comprehensive Major Medical expense protection — \$250 Calendar year Deductible
- Includes cost-containment features
- Unlimited Maximum Benefits

MEDICAL PLAN 6

- Comprehensive Major Medical expense protection — \$100 Calendar Year Deductible
- Includes cost-containment features
- Unlimited Maximum Benefits

MEDICAL PLAN 7

- Economical Comprehensive Major Medical expense protection — \$1,000 Calendar Year Deductible
- Unlimited Maximum Benefits

SUPPLEMENTAL BENEFITS FOR ORGAN OR TISSUE TRANSPLANTS

- Included with all medical plans.
- Covered Transplant Procedures: This policy covers any of

the following human to human organ or tissue transplants: bone marrow; heart; heart/lung; liver; lung; pancreas.

- Transplant Benefit Period: The transplant benefit period begins five days before the date of the organ or tissue transplant and ends eighteen months after the date of the organ or tissue transplant.
- Maximum Transplant Benefit: \$1,000,000 per lifetime per insured person for all transplant services.

DENTAL PLAN

- Reasonable and Customary allowances for necessary care and treatment for dental health
- \$1,500 Maximum Dental Benefit per person in a Calendar Year

MEDICAL REIMBURSEMENT PLAN

- Tax Deductible to the professional corporation

The Lincoln National Life Insurance Company is most pleased to be underwriting the Group Medical and Dental Program for the Indiana State Medical Association. Your benefit programs have been designed to provide the highest quality coverage and service at the lowest possible cost. A special claim paying unit has been established in our Fort Wayne Regional Claims Office to handle only the ISMA program. Should you have questions or problems, you may speak directly to your claim processor at 800-338-0363. We look forward to serving your association and encourage your review of the program and services being provided.

For more information contact:

Earl W. Williams
Professional Account Representative
11595 N. Meridian St., Suite 802
Carmel, Indiana 46032
(317) 573-6520
1-800-421-3020 Indiana
1-800-428-7105 Other States

Tom Martens
Director, Health Insurance Administration
Indiana State Medical Association
3935 North Meridian Street
Indianapolis, Indiana 46208
(317) 926-4424
1-800-969-7545 Indiana

■ guest editorial

The economics of medical care, 1940 to 1991

Philip Ball, M.D.
Muncie

1940: There are lots of Norman Rockwell types of kindly family doctors and many simple, local, private hospitals. There are also a few big-city, charity hospitals, for which society picks up the tab.

1946: Blue Cross/Blue Shield pays part of hospital and doctor bills through insurance. Patients pay for their own insurance.

1950: Employers start picking up the tab for Blue Cross/Blue Shield. Other insurance companies get into the act. Insurance covers more and more of medical care. Hospitals and laboratories go into a cost-plus arrangement. Nobody cares what medical, hospital and laboratory costs are. Just take the cost and add 20% to 50%. Then tell the insurance company what the charges are. The insurance company then raises the premium and passes this on to the employer. The patient has no idea what the costs are. Patients who are healthy are admitted to the hospital just for tests, "so my insurance will cover it."

1964: Medicare enters the medical insurance business, although doctors fought this as a step on the road to communism. Cost-plus is still the name of the game. The doctor-hospital-lab insurance

complex begins to charge a lot more.

1970: The medical business is very good. Big, plush, fancy hospitals are being built. Big insurance buildings are constructed. Doctors move out of remodeled old home-type offices and move into fancy new offices. Doctors drive bigger cars. The doctor-hospital-lab-insurance complex is quite happy. Charge more, insurance pays more, insurance costs more, employers pay more. They are all happy. The patient knows nothing, so he is happy. The taxpayer knows nothing, so he is happy.

1975: Everything is wonderful. People can drop grandpa off at the hospital on Friday for a free tune-up and lube and pick him up Monday afternoon.

1980: America finally realizes it is involved in a total world market. Doctors already know this. They use Japanese stethoscopes and endoscopy tools and drive big European cars. Employers find the price they pay for employees' medical insurance is raising the cost of their product so much that it is not competitive. They are unhappy. The employees are unhappy too. Medicare goes deductible. People are all unhappy. They ask, what happened? The government tells the medical complex it is charging too much. The the doctor-hospital-

insurance-complex is unhappy. You don't like us anymore? You want Rolls Royce medicine at Honda prices? Employers ask us to say Chevy not Honda. Now doctors say tinkering with their beloved Medicare is a dirty communist trick. Charity hospitals are closing. Government can't afford the tab.

1989: Everybody is unhappy. One group of doctors accuses another group of doctors of being greedy and vice-versa. Doctors say hospitals and laboratories make too much money. Confusing Medicare and private insurance bureaucracy makes everybody crazy. We have HCFA, PEER-REV, DRG, ET, RBRVS, PPO, HMO, PDQ, BMW, MAACs and others. Only the medical computer people are happy, because it takes a computer to figure out medical paperwork.

1990: Computers are overheating. People are overheating.

1991: The government launches a half-billion dollar investigation into medical costs. What made costs increase? What happened? Who is to blame? The government promises to straighten out the mess, just like it helped to straighten out the national debt, the Iran-Contra scandal, the HUD disgrace, the B-2 bomber waste, the S&L crisis and the simplification of the IRS returns. Please don't hold your breath! □

**Suzanne Miller
Kathy Cabigas
ISMA Auxiliary**

The prime target of a medical auxiliary is to promote programs focusing on health. However, auxiliaries must tailor their programs because health needs of communities differ. Auxiliaries can tailor their programs through coalitions with other organizations and individual and group action, including working with medical societies. No single, magic formula exists.

Here are some of the ways county auxiliaries are helping their communities:

Allen

Two projects are planned this spring. Five scholarships, \$400 each, will be awarded to nursing and para-medical students. The annual fund raiser will be held for the Three Rivers Clinic, which offers medical support for needy, expectant mothers and their children.

Clark County

Clark County unites to support its charities and hospitals. Clark's annual Christmas Gala Benefit Ball is a community event that raises money for five different local services: St. Elizabeth Home for Unwed Mothers, Haven House for the Homeless, New Hope Services for the mentally and physically handicapped, Clark Hospital Foundation and the American Heart Association. The latter will provide a Treasure Chest Module to teach pre-school children how to have a healthy heart.

Health Projects Chairman Agie Matibag attends monthly board

meetings of Healthy Cities of Indiana, sponsored by the Kellogg Co.

Delaware-Blackford County

Smoke-out advocates Barney Bear and Calvin Coyote continue to receive support from Delaware-Blackford County. The furry creatures, costumed and portrayed by their creators, have presented skits on the health hazards of smoking and smokeless tobacco products to thousands of children in 30 area schools. To emphasize the program, the auxiliary sponsors a Barney and Calvin coloring contest through the local newspaper. This year, more than 200 children sent their crayon entries. Barney and Calvin appeared during the 1988 convention and received auxiliary pins in recognition of their contribution to our health programs.

Delaware-Blackford members hold a two-day garage sale for Muncie's Hospitality House. This house, a member of the National Association of Hospitality Houses, is a temporary home for out-of-county relatives of hospitalized patients at Ball Memorial Hospital.

Elkhart County

Proceeds from a December charity auction support Elkhart's YWCA Battered Women's Shelter. Each month, the auxiliary collects food, clothing and cleaning supplies for the shelter.

"All about Organella," the doll with removable, cloth body parts, is used in the educational lesson for children who tour the local hospital. The auxiliary provided the doll for the hospital.

Grant County

In Grant County, the auxiliary gives its talent and time to two

health fairs. The first, held in the fall, focused on children's health. The second, to be held this month, will have 35 community-sponsored booths. The auxiliary, in cooperation with Family Services, will photograph, fingerprint and measure young children. This information assists in identifying missing children.

Lake County - northwest

Lake County continues its "Baby Watch" program for grades 6 through 8 in coalition with the school and the auxiliary. "The program helps children appreciate the value of human life and its development," said Toni Sri, county auxiliary health chairman. Following a program plan developed by the auxiliary, parents and their babies are brought into the classroom to give first-hand, parenting insight.

For adults, the auxiliary holds monthly blood pressure screenings at the YWCA facilities in Hammond.

Lake County - southwest

This month auxiliaries will hold a one-day seminar on biofeedback and stress.

Marion County

Local clinics for the homeless will benefit from Marion County's annual drive to collect free samples of medicine from local doctors' offices. An on-going collection is planned to meet local needs. The auxiliary also hopes to provide tuberculosis testing for the homeless. About 20 auxiliaries volunteer at free clinics for the homeless, offering their services in various capacities.

Marion County also provides substantial nursing scholarships (\$9,000 to \$10,000) to qualified

■ auxiliary report

applicants.

Noble and LaGrange counties (1990 convention hosts)

Have you see the Noble-La-Grange Teen Health Cards? These wallet-size cards provide area youths with important phone numbers. This idea is spreading – a number of auxiliaries, often in coalition with local groups, are providing similar cards.

Owen-Monroe County

For the first time, an auxiliary HIV/AIDS booth was stationed at an Indiana University-sponsored health fair. AIDS information and condoms were available. Ann Wrenn and Joan Hogen staffed the station.

Vigo County

The alternative high school and women's shelter in Vigo County

receives continuous support from the Vigo auxiliary. Auxiliary members give whatever they can – food, clothing, books and, most importantly, time.

Vanderburgh County - southwest

"Ask your Doctor" was the theme of the Vanderburgh medical society and auxiliary booth at the health fair last February. The booth was held in conjunction with a local hospital. Local physicians also contributed their time and knowledge at the booth.

Wayne-Union County

Carol Hinshaw, an organizing member of the Richmond "Task Force on Teenage Pregnancy," has completed a two-and-a-half-year study on this subject in Wayne-Union County. She presented her research at the annual Valentine Spouse Dinner at Reid Memorial

Hospital.

The auxiliary also distributed "Facts," from the American College of Obstetricians and Gynecologists, to students at Richmond High School.

Scholarship funds for second-year nursing students at Indiana University East are raised at the annual nurses' scholarship spring luncheon.

Wells County

When an auxilian needed multiple radiation treatments at a Fort Wayne hospital, Wells auxiliarians quickly organized a car pool.

The auxiliary also adopted a family for Christmas and provided gifts of clothing and food.

If your health project isn't included, we'll hear from you at convention, April 26 through 28, at Amish Acres in Nappanee. □

Join a medical team that Guards your community and state.

As a physician in the Army National Guard, you can broaden your medical experience and life experience. You'll start as an officer, enjoying all the privileges and prestige rank can bring. And you can attend professionally approved courses at no cost. Best of all, you'll be helping people in your state and local community. People who really need your special skills. For more information, contact your Army Guard recruiter.

**317-232-7953, 521-4140
OR 1-800-792-3493**



The Guard is America at its best.

Physician Placement Service

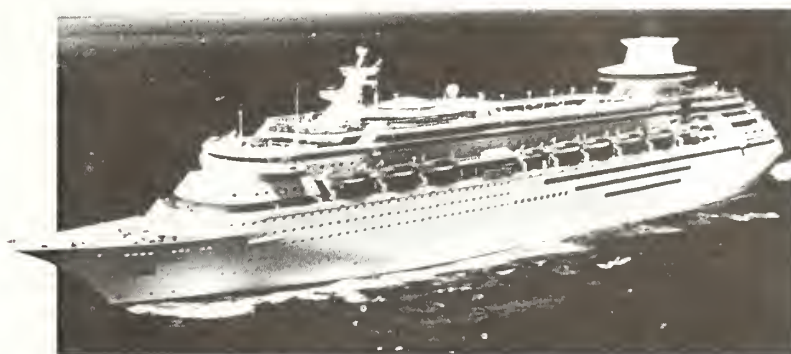
Physicians or residents seeking practice opportunities may list their curriculum vitae with the Physician Placement Service at no charge.

PPS acts as a clearinghouse for communication between physicians and recruiters such as hospitals, clinics and physician groups. Since its establishment in 1987, PPS has assisted many physicians in locating practice situations.

For more information, contact Denise Le Doux, PPS coordinator, Indiana State Medical Association, (317) 925-7545 or 1-800-969-7545.



When you're ready for something better.



Ships of Norwegian Registry

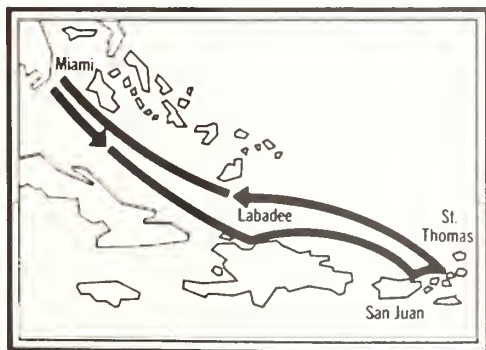
7 Day Eastern Caribbean Cruise

Cruise the Eastern Caribbean for 7 days. And save hundreds of dollars when you book 180 days in advance with Royal Caribbean's UpFront discount program.

When your ship comes in, she'll be the beautiful new Sovereign Of The Seas.

Explore three exotic ports in the Eastern Caribbean including Labadee, Royal Caribbean's exclusive port of call. Then it's on to San Juan and St. Thomas, for the best duty-free shopping in the Caribbean.

Saturday departures from Miami, year-round.



Regular price: \$1490

ISMA SPECIAL OFFER:
\$1191

Call 1-800-367-5410 (Indiana)
244-3341 (Indianapolis)

INTERNATIONAL TOURS TRAVEL AGENCY

(Endorsed by the Indiana State Medical Association)

5420 Southern Avenue Suite 100

Indianapolis, IN 46241

EVERY AIRLINE TICKET AND CRUISE DISCOUNTED TO ISMA MEMBERS

When you're ready for something better.

CARDIOLOGY – DIAGNOSTIC & INTERVENTIONAL

NASSER, SMITH AND PINKERTON CARDIOLOGY, INC.



providing

William K. Nasser, M.D.
Michael L. Smith, M.D.
Cass A. Pinkerton, M.D.
James W. VanTassel, M.D.
Dennis K. Dickos, M.D.
John D. Slack, M.D.
Charles M. Orr, M.D.
Jane Howard, M.D.
James H. Adlam, M.D.
V. Michael Bournique, M.D.
Frank J. Green, M.D.
Nancy A. Branyas, M.D.
Charles P. Taliercio, M.D.
Bruce F. Waller, M.D.

Cardiology and Cardiac Catheterization
Echocardiography
Exercise Stress Testing
Coronary Angioplasty
Nuclear Cardiology
Pacemaker Surveillance
Holter Monitoring
Percutaneous Valvuloplasty
Electrophysiologic Testing
Coronary Atherectomy
Myocardial Biopsy
Automatic Implantable Cardioverter Defibrillator

Suite 400
St. Vincent Professional Building
8402 Harcourt Road
Indianapolis, Indiana 46260
Telephones:
Office: **317-871-6666**
Toll Free:

800-732-1482 (Indiana)
800-CHD-PTCA (Indiana)
800-CAD-PTCA (National)

PHYSICIAN
REFERRAL ONLY

CARDIOLOGY



INDIANA HEART PHYSICIANS, INC.

Beech Grove Medical Center
112 North 17th Avenue
Suite 300
Beech Grove, IN 46107

With additional offices located in the
Indianapolis-Greenwood area and
Columbus

Indianapolis-Greenwood
(317) 783-8800
(800) 992-2081 (Indiana Only)
Columbus:
(812) 379-2020
(800) 537-9587 (Indiana Only)

H.O. Hickman, Jr., MD, FACC
Thomas M. Mueller, MD, FACC
J. Douglas Graham, MD, FACC
Kathleen H. Flohr, PhD, MD, FACC
Jeffery F. Christie, MD
David J. Hamilton, MD
Stephen H. Kliman, MD, FACC
Thomas C. Passo, MD
Kevin C. Preuss, MD, FACC
Emily A. Diltz, MD, FACC
John E. Batchelder, MD, FACC, FCCP

Cardiology and Cardiac Catheterization
Coronary Angioplasty
Balloon Valvuloplasty
Electrophysiology
Permanent Pacemaker Implantation
Nuclear Cardiology
Doppler and Echocardiography
Exercise Stress Testing
Holter Monitoring
ECG Event Monitoring
Pacemaker Surveillance
Stress Echocardiography
Noninvasive Peripheral Vascular
Evaluation



Indianapolis Cardiology Associates, Inc.

Robert E. Edmands, M.D., FACC

Samuel M. Hazlett III, M.D.

Don B. Ziperman, M.D., FACC

Physician Referral Only

- Cardiology and Cardiac Catheterization
- Doppler and Echocardiography
- Exercise Stress Testing
- Coronary Angioplasty
- Pacemaker Surveillance
- Holter Monitoring

1315 North Arlington Ave.
Suite 100
Indianapolis, IN 46219
(317) 359-5301

7250 Clearvista Dr.
Suite 227
Indianapolis, IN 46256
(317) 841-5385

CARDIOLOGY

FORT WAYNE CARDIOLOGY

Basil C. Genetos, M.D., F.A.C.C.
Robert W. Godley, M.D., F.A.C.C.
Michael J. Mirro, M.D., F.A.C.C.
Kevin J. Kelly, M.D., F.A.C.C.

Fred Doloresco, M.D., F.A.C.C.
John F. Phillips, M.D., F.A.C.C.
Patrick J. Daley, M.D., F.A.C.C.
William W. Wilson, M.D.

are pleased to announce the association of

James J. Heger, M.D., F.A.C.C.

for the practice of cardiology.

Fort Wayne Cardiology, Inc.

P. O. Box 5603
1912 Carew Street
Fort Wayne, IN 46895-5603
(219) 482-4865
1-800-637-6505 (Indiana)
1-800-334-4371 (Ohio, Michigan, Kentucky, Illinois)

CARDIOLOGY

Cardiology Consultants, P.C.

is pleased to announce the opening of an expanded office at

Saint Joseph Medical Center
800 Broadway
Suite 204
Fort Wayne, IN 46802

offering

full service non-surgical intervention
in diagnostic, clinical, and preventative cardiology.

Robert E. Swint, Sr., M.D., Mark A. Jones, M.D., David A. Kaminskas, M.D.,
Gary A. Hambel, M.D., Mary H. Heintz, M.D., Ravi N. Bathina, M.D.,
Gregory C. Tomlinson, M.D., & Brian T. Lew, M.D.

3000 S. Wayne Ave.
Fort Wayne, IN 46807
(219) 744-2297

7224 Engle Rd.
Fort Wayne, IN 46804
(219) 432-2297

800 Broadway, Suite 204
Fort Wayne, IN 46802
(219) 422-2558

.....(800) 777-2297.....

ORTHOPEDIC SURGERY

FRACTURE CARE/TRAUMA
SPORTS MEDICINE
ARTHROSCOPIC SURGERY
JOINT RECONSTRUCTION
SCOLIOSIS
SPINAL SURGERY
SHOULDER SURGERY
HAND SURGERY
FOOT SURGERY
PEDIATRIC ORTHOPAEDICS
ADULT ORTHOPAEDICS



OFFICE ANSWERS DAY & NIGHT

TOLL FREE IN INDIANA (800) 223-3381

DONALD S. BLACKWELL, M.D.
F.R. BRUECKMANN, M.D., F.A.C.S.
ANTHONY R. LASICH, M.D.
WILLIAM O. IRVINE, M.D.
JOSEPH C. RANDOLPH, M.D.
DONALD E. RUSSELL, M.D.
MARK R. STEVENS, M.D.
TERRY R. TRAMMELL, M.D.
ANDREW J. VICAR, M.D.
VINCENT L. FRAGOMENI, M.D.
JOHN K. SCHNEIDER, M.D.
JOSEPH R. BAELE, M.D.
SANFORD S. KUNKEL, M.D.
DAVID A. FISHER, M.D.
HENRY G. STEIN, M.D., F.A.C.S.

Orthopaedic Surgeons

MAIN OFFICE
1801 N. Senate Blvd.
Suite 200

923-5352

Appointment Scheduling 924-2778

WESTLAKE
805 Beachway Dr.

244-9499

DANVILLE
252 Meadow Dr.

745-4525

Major Credit Cards Accepted

■physicians' directory

CRITICAL CARE

Critical Care Medicine

*Specialists
in the care of
critically ill or
injured patients*

David Powner, MD, FCCP, FCCM

Michael Buran, MD Regis Lagler, MD

Stephen Olvey, MD Daniel J. Polacek, MD

Methodist
Hospital OF INDIANA, INC.

1701 North Senate Boulevard
Indianapolis, IN 46202

**For information
and patient referrals
(317) 929-5293**

After office hours for patient referrals call
929-8551 and page Critical Care Intensivist.

DOCTORS:

This space is available.

For rates, write or call
Indiana Medicine
3935 N. Meridian St.
Indianapolis, IN 46208
(317) 925-7545
1-800-969-7545 in Indiana only

NEUROLOGY

Shirley M. Mueller, M.D.

General Neurology

Pain, Headache &

Diseases of the Autonomic Nervous System Including Dizziness

Testing Available

317-871-6000

Indianapolis

North: St. Vincent's Professional Bldg. #726

South: University Heights Professional Bldg., Suite M

COLON & RECTAL SURGERY

W. M. KENDRICK, M.D.
G. A. DONNALLY, M.D.
R. JAMES WILSON, M.D.
W. E. KELLEY, M.D.
RICHARD L. STOUT, M.D.
PAULA A. HALL, M.D.

*Practice limited to Colonoscopy,
Treatment and Surgery of Rectal Diseases*

Kendrick Memorial Hospital, Inc.
Mooresville, Indiana

Tel: 317-831-9300

1-800-222-7994

(JCAH Accredited)

DOCTORS:

This space is available.

For rates, write or call: INDIANA MEDICINE, 3935 N.
Meridian St., Indianapolis, IN 46208, (317) 925-7545,
1-800-969-7545 in Indiana only.

CLINICAL & ANATOMIC PATHOLOGY



ANATOMIC PATHOLOGY/CYTOLOGY

Surgical Pathology
Gynecologic/Respiratory
and Fluid Cytology
Fine Needle Aspiration Biopsy
Performance and Interpretation

LABORATORY AND OFFICE
7430 North Shadeland Ave.
Indianapolis, IN 46250
(317) 841-0133

Edwin E. Pontius, M.D.
Director
Mary L. Forster, M.D.
Ted Bloch, M.D.
G.R. Schwenk Jr., M.D.
Robert J. Swedo, M.D.
Board Certified Pathologists

COURIER SERVICES FOR:
Physician Offices
Ambulatory Surgery Centers
Hospitals

Medicare/Medicaid Approved
(Assignments Accepted)
Blue Shield Preferred Provider
Accept Maxicare, PMA/PHA, etc.

OPHTHALMOLOGY

GARY T. RAFLO
M.D., F.A.C.S.

OPHTHALMIC
PLASTIC AND
RECONSTRUCTIVE
SURGERY



9333 NORTH
MERIDIAN
SUITE 302
INDIANAPOLIS
IN 46260
317 573 9966
800 937 9966

FELLOW	AMERICAN COLLEGE OF SURGEONS AMERICAN SOCIETY OF OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY
DIPLOMATE	AMERICAN BOARD OF OPHTHALMOLOGY
SURGERY	EYELID AND EYEBROW COSMETIC SURGERY PTOSIS EYELID AND ORBITAL TUMORS LACRIMAL DRAINAGE DISORDERS ORBITAL AND FACIAL TRAUMA THYROID EYE DISORDERS

OTOLOGY

MERIDIAN OTOLOGY LAB

*Complete Audiometric Evaluations
*Hearing Aid Evaluations and Dispensing
*Brainstem Auditory Evoked Response
*Visual Evoked Response
*Electronystagmography
*Assistive Listening Devices—Demonstrations Available

Richard Kurtz, M.D. Jack Summerlin, M.D.
Marvin R. Kolodny, Ph.D.
Director of Audiology

3266 N. Meridian Street Indianapolis, Indiana
Suite B12 (317) 925-7077

ALCOHOLISM TREATMENT

Indiana's Leading Hospitals Specializing In The Treatment of Alcoholism and Drug Abuse.



- adolescent program
- adult program
- family program
- older adults program
- impaired professionals program
- cocaine program
- outpatient program
- disabled program
- relapse program
- co-dependency program

OUTREACH OFFICES

Bloomington • Fort Wayne • Clarksville • Merrillville • Indianapolis • Marion
South Bend • Greenwood • Kokomo • Lafayette

Michael Chadwick, M.D.
David Gregory, M.D.
Koala Center
2223 Poshard Drive
Columbus, Indiana
(812) 376-1711

John Saalwaechter, M.D.
Koala Adolescent Center
1404 S. State Avenue
Indianapolis, Indiana
(317) 783-4084

Daniel Kubley, M.D.
Koala Center
1800 N. Oak Road
Plymouth, Indiana
(219) 936-3784

Kete Cockrell, M.D.
Koala Center
1711 Lafayette Avenue
Lebanon, Indiana
(317) 482-3711

Indiana Toll-Free • 24-Hour HELPLINE • 1-800-622-4711

ALCOHOLISM TREATMENT

Eugene G. Roach, M.D.
Executive/Medical Director



Anderson Center
of Saint John's
7200 Jackson Street
Anderson, Indiana 46016

1-800-435-9143 or (317) 646-8383

- Comprehensive Alcohol and Drug Treatment
- Separate Programs for Adolescents and Adults
- Free Assessment and Intervention

ALCOHOLISM TREATMENT

Douglas Bullington, M.D.
Program Director



COUNTERPOINT CENTER
at CPC Valle Vista Hospital
898 E. Main Street
Greenwood, IN 46143
317/887-1348

- Free evaluation and intervention
- Adult & Adolescent Treatment Services
- 24 hours a day

■physicians' directory

INTERNAL MEDICINE

NEPHROLOGY & INTERNAL MEDICINE, INC.

Thomas Wm Alley M.D. FACP Theodore F. Hegeman M.D.
George W. Applegate M.D. Douglas F. Johnstone M.D.
Richard Bloch M.D. Wendy L. Kindig M.D.
Charles B. Carter M.D. LeRoy H. King Jr. M.D. FACP
William H. Dick M.D. FACP Mary A. Margolis M.D.
Tim E. Taber M.D.

**1801 N. Senate Blvd., Suite 355
Indianapolis 46202
Tel: 317-924-8425**

By Physician Referral

Answering Service 926-3466

Clinical Nephrology, Hemodialysis, Peritoneal Dialysis, Renal Transplantation, Metabolic Kidney Stone Disease, Hypertension, Fluid and Electrolyte Imbalance, Critical Care

HEMODIALYSIS

CHRONIC MAINTENANCE OUTPATIENT HEMODIALYSIS

DIALYSIS INSTITUTE OF ANDERSON
2629 Nichol Avenue
Anderson, Indiana 46011
317-649-0772

DIALYSIS INSTITUTE OF BEECH GROVE
3834 South Emerson Avenue
Indianapolis, Indiana 46203
317-787-3171

DIALYSIS INSTITUTE OF KOKOMO
Community Medical Arts Center
3611 South Reed Rd. (31 Bypass)
Kokomo, Indiana 46902
317-453-0606

For further information contact
NEPHROLOGY & INTERNAL MEDICINE, INC.
1801 N. Senate Blvd., Suite #355
Indianapolis, Indiana 46202
317-924-8425

Outpatient renal consultation may be
scheduled at any location.

HAND SURGERY

JOHN C. KLEIN, M.D.

Specializing in the diagnosis and treatment of hand,
wrist, and forearm disorders.

2727 N. Pennsylvania St. 317-925-1665
Indianapolis, IN 46205 Answered 24 hours

Diplomate American Board of Orthopedic Surgery
with certificate of added qualifications in surgery of the hand.

HEMATOLOGY - ONCOLOGY

JOHN A. CAVINS, M.D.

8220 NAAB ROAD SUITE 105
INDIANAPOLIS INDIANA 46260
TELEPHONE (317) 876-1036

SERVING
INDIANAPOLIS CARMEL NOBLESVILLE

DERMATOPATHOLOGY

DERMATOPATHOLOGY LABORATORY

Larry J. Buckel, M.D.
Robert M. Hurwitz, M.D.

Howard R. Gray, M.D.
William B. Moores, M.D.



Diplomates of the American Boards
of
Dermatology and Dermatopathology

Specializing in
Inflammatory Skin Diseases
and
Neoplasms of the Skin

9202 North Meridian Street
Suite 215

Approved for and Accept
Medicare and Medicaid
Assignment

Indianapolis, Ind. 46260
(317) 843-2204

UPS Mailers and Courier Service Available

PSYCHIATRY

Eugene G. Roach, M.D.
Executive/Medical Director



Anderson Center

of Saint John's
2411 Jackson Street
Anderson, Indiana 46016

1-800-435-9143 or (317) 646-8114

- Comprehensive Psychiatric Treatment
- Separate Programs for Adolescents, Adults and Older Adults
- Program for Dual Diagnosis

PSYCHIATRY

Davis Psychiatric Clinic, Inc.

1431 North Delaware Street
Indianapolis, Indiana 46202
317/634-9930

Larry M. Davis, M.D.
R. Peter Mohlman, M.D.
Judith L. Campbell, M.D.

Comprehensive Child, Adolescent, Adult Psychiatry
Sexual Therapy, Crisis Intervention
Alcohol and Substance Abuse

PERIPHERAL VASCULAR SURGERY



VASCULAR SURGERY, P.C.

Austin L. Gardner, M.D.
Malcolm B. Herring, M.D.
Daniel R. LeGrand, M.D.
David L. Madison, M.D.
Spencer F. Goodson, M.D.

St. Vincent Professional Building
8402 Harcourt Road
Suite 613
Indianapolis, Indiana 46260
Telephone (317) 871-6400
TOLL FREE (800) 662-5367

Carmel Medical Center
13450 North Meridian Street
Suite 160
Carmel, Indiana 46032
Telephone (317) 573-7040
TOLL FREE (800) 446-0298

Vascular
Diagnostics
— Mobile
— Non-invasive
— Testing™



The Vascular Lab

NONINVASIVE VASCULAR TESTING

The vascular lab offers a full spectrum of diagnostic vascular testing services, including the new addition of color computed sonography, supported by the entire team of:

John F. Ansbro, M.D. • Alan T. Marty, M.D. • Herbert Dan Adams, M.D.
Richard A. Murrell, M.D. • Daniel B. Daniels, M.D.

Cardiovascular Surgery Inc.

350 West Columbia
Suite 350
Evansville, Indiana 47710
812-423-2395

■physicians' directory

BREAST DISEASES

INDIANA CENTER FOR BREAST DISEASES

DAVID W. PRICE, M.D.

Practice limited to Multidisciplinary Treatment of
BREAST DISEASES

Diagnosis	(317) 872-9580
Consultation	8330 Naab Road, Suite 213
Treatment options	Indianapolis, IN 46260
Preservation surgery	
Long-term followup	Appointment by referral

ABDOMINAL SURGERY

TED W. GRISELL, M.D.

*Providing consultative services
for physicians throughout Indiana
for patients with
complex management problems*

5317 East 16th Street	317-359-8261
Indianapolis 46218	Phone answered 24 hours

DOCTORS:

This space is available.

For rates, write or call
Indiana Medicine
3935 N. Meridian St.
Indianapolis, IN 46208
(317) 925-7545
1-800-969-7545 in Indiana only

PLASTIC SURGERY

GARY T. RAFLO
M.D., F.A.C.S.

OPHTHALMIC
PLASTIC AND
RECONSTRUCTIVE
SURGERY



9333 NORTH
MERIDIAN
SUITE 302
INDIANAPOLIS
IN 46260

317 573 9966
800 937 9966



AMERICAN SOCIETY OF
PLASTIC & RECONSTRUCTIVE
SURGEONS, INC.

John G. Pantzer Jr., M.D., F.A.C.S.
Diplomate, American Board
of Plastic Surgery

Bradley L. Kudlaczky, M.D.
1801 North Senate Blvd., Suite 735
Indianapolis, Indiana 46202
317-929-5500

ASTHMA & ALLERGY

MARK HOLBREICH, M.D.

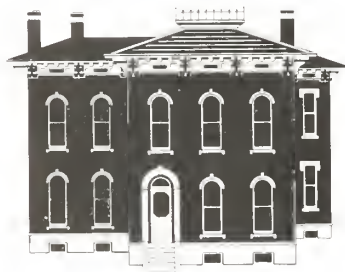
**PEDIATRIC AND ADULT
ASTHMA, ALLERGY AND IMMUNOLOGY**

8803 N. Meridian St.
Suite 365
Indianapolis, Indiana
(317) 574-0230

- | | |
|-----------------|---------------------------|
| ○ Asthma | ○ Adverse Food Reactions |
| ○ Chronic Cough | ○ Drug Sensitivity |
| ○ Rhinitis | ○ Stinging Insect Allergy |

ONCOLOGY — HEMATOLOGY

INDIANA ONCOLOGY-HEMATOLOGY CONSULTANTS



ADULT ONCOLOGY HEMATOLOGY

Laurence H. Bates, M.D.
William H. Bond, M.D.
William M. Dugan, M.D.
Redmond P. Hogan, M.D.
Gregory W. Smith, M.D.

PEDIATRIC ONCOLOGY HEMATOLOGY

Deborah S. Provisor, M.D.

1828 N. ILLINOIS
INDIANAPOLIS
INDIANA 46202

PHONE: 317/927-5770
TOLL FREE: 1-800-ONC-HEME
1-800-662-4363

*Located in the Byram Gates Middleton House
Listed on the National Register of Historic Places*

RADIATION ONCOLOGY



Physicians:
ROGER ROBISON
DAVID BELL
TAE CHUNG

Radiation Oncology Services for Southwest Indiana

TERRE HAUTE
Regional Hospital
(812) 234-7756

VINCENNES
Good Samaritan Hospital
(812) 885-3939

ROGER ROBISON, M.D., F.A.C.P.
M.D. Anderson, 1980
Certified: Radiation
Oncology
Medical Oncology

DAVID BELL, M.D., Ph.D.
M.D. Anderson, 1981
Certified: Radiation
Oncology

TAE CHUNG, M.D.
Chicago Hines, V.A., 1976
Certified: Radiation
Oncology

RADIATION ONCOLOGY

TRI-STATE RADIATION ONCOLOGY

Evansville
Cancer Center
Evansville, Indiana
(812) 474-1110



Welborn
Cancer Center
Evansville, Indiana
(812) 426-8373

AL KORBA, M.D.; ALY RAZEK, M.D.;
THOMAS HAYES, M.D.; AMR AREF, M.D.; SHANNON LAMB, M.D.

★ ★ ★ ★ ★

Tri-County Cancer Care Center
Jasper, Indiana
(812) 482-2212

DEV DAS SHETH, M.D.

Tri-County Cancer Care Center
Princeton, Indiana
(812) 386-6663

MOISES DOMINGO, M.D.

★ ★ ★ ★ ★

Olney Cancer Center
Olney, Illinois
(618) 392-3050

MOISES DOMINGO, M.D.

Harrisburg Oncology Associates
Harrisburg, Illinois
(618) 252-5126

MANJU GUPTA, M.D.

★ ★ ★ ★ ★

Radiation Oncology
Owensboro, Kentucky
(502) 926-7228

TRISTAN BRIONES, M.D.

Henderson Cancer Center
Henderson, Kentucky
(502) 827-0255

AMR AREF, M.D.

★ ★ ★ ★ ★

In Indiana 1-800-843-7117
Out of Indiana 1-800-331-9294
24-hour answering service (812) 476-1367

ONCOLOGY

Indiana Regional **Cancer Center**

Science made Human.SM

Medical Oncology And Hematology

L.K. Everson, M.D.

Andrew Ross
Greenspan, M.D.

Shivaji Gunale, M.D.

Keith Logie, M.D.

M.S. Murali, M.D.

Radiation Oncology

Nini Bermudez-Webb, M.D.

Thomas O'Connor, M.D.

Palliative Care

Neil Irick, M.D.



Community Hospitals Indianapolis
(317) 353-4758

PHYSICAL MEDICINE & REHABILITATION

Physician's Back Pain Clinic, P.C.

A medical team approach to musculoskeletal and spinal pain disorders offering physical therapy, therapeutic exercise and manual manipulation.

DIAGNOSTIC ELECTROMYOGRAPHY

- Personal injury • Workman's compensation
- Impairment rating • Disability evaluation

350 WEST COLUMBIA • SUITE 100 • EVANSVILLE, INDIANA 47710 • 812/425-2662

Board Certified

Clint Mallari, M.D. • Laurance Silverman, M.D.

David Wm. Johnson, M.D.

ORTHOPAEDIC SURGERY

JAMES L. KAISER, M.D.



- ORTHOPAEDIC SURGERY
- FRACTURES
- BACK SURGERY
- FOOT SURGERY
- ARTHROSCOPIC SURGERY

Certified American Board
Of Orthopaedic Surgery

5626 East 16th Street
Indianapolis, IN 46218

(317) 352-0176

OFFICE ANSWERS DAY & NIGHT

5626 E 16
82nd & Shadeland
If No Answer Call

352-0176
352-0176
543-6089

DOCTORS:

This space is available.

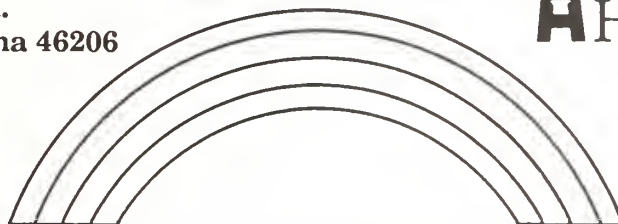
For rates, write or call
Indiana Medicine
3935 N. Meridian St.
Indianapolis, IN 46208
(317) 925-7545

1-800-969-7545 in Indiana only

TRANSPLANTATION

METHODIST TRANSPLANT CENTER

P.O. Box 1367
1701 N. Senate Blvd.
Indianapolis, Indiana 46206



24 - HOUR REFERRAL

(800) 772-7788

HEART TRANSPLANTATION

Surgical Director
Harold Halbrook, M.D.
Program Cardiologist:
Douglas Pitts, M.D.

LUNG TRANSPLANTATION

Surgical Director
Harold Halbrook, M.D.
Program Pulmonologist:
Michael Niemeier, M.D.

KIDNEY TRANSPLANTATION PANCREAS TRANSPLANTATION

Surgical Director
Brian Haag, M.D.
Program Nephrologist:
Charles Carter, M.D.

LIVER TRANSPLANTATION

Surgical Director
Dale A. Rouch, M.D.
Program Gastroenterologists:
Peds - Vanessa Z. Ameen, M.D.
Adult - Brian G. Sperl, M.D.

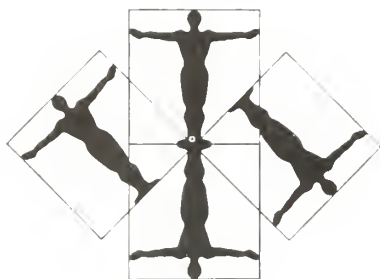
CORNEAL TRANSPLANTATION

Surgical Director
Stephen Johnson, M.D.

TISSUE/BONE BANK

Medical Director
David A. Fisher, M.D.

ORTHOPAEDICS & SPORTS MEDICINE



Hoosier Orthopaedics & Sports Medicine, P.C.

Total Joint Replacement
Athletic Injuries and Sports
Medicine
Arthroscopic Surgery
Pediatric and Adult Orthopaedics
Fracture Care/Trauma

Reconstructive Surgery of the Foot
and Ankle
Reconstructive Surgery of the
Shoulder or Knee
Back Surgery
General Orthopaedics

Robert T. Clayton, M.D.
Robert E. Cravens, M.D.
John E. Garber, M.D.
Robert M. Palmer, M.D.
Stephen B. Sexson, M.D.
Frank B. Throop, M.D.
Thomas F. Trainer, M.D.

Office Answers Day and Night

2020 West 86th Street • Suite 304, Indianapolis, Indiana 46260 (317) 872-3364
8330 Naab Road • Suite 234, Indianapolis, Indiana 46260 (317) 872-3254

OFFICERS

President — George H. Rawls, Indianapolis
 Pres-elect — Michael O. Mellinger, LaGrange
 Immediate Past Pres — Fred W. Dahling, New Haven
 Executive Director — Richard R. King, Indianapolis
 Treasurer — Max M. Wesemann, Franklin
 Asst. Treasurer — John A. Bizal, Evansville
 Speaker — C. Dyke Egnatz, Schererville
 Vice Speaker — William H. Beeson, Indianapolis

EXECUTIVE COMMITTEE

*George H. Rawls, Indianapolis
 Michael O. Mellinger, LaGrange
 Fred W. Dahling, New Haven
 Max M. Wesemann, Franklin
 John A. Bizal, Evansville
 William C. Van Ness II, Summitville
 William E. Cooper, Columbus
 Clarence G. Clarkson, Richmond
 C. Dyke Egnatz, Schererville
 William H. Beeson, Indianapolis

TRUSTEES (Terms end in October)

District

1 — Tom M. Harmon, Evansville (1992)
 2 — Paul J. Wenzler, Bloomington (1990)
 3 — Gordon L. Gutmann, Jeffersonville (1991)
 4 — William E. Cooper, Columbus (1992)
 5 — Fred E. Haggerty, Greencastle (1990)
 6 — Clarence G. Clarkson, Richmond (1991)
 7 — Donna J. Meade, Indianapolis (1992)
 7 — John M. Records, Franklin (1990)
 7 — Peter L. Winters, Indianapolis (1991)
 *8 — Wm. C. Van Ness, Summitville (1990)
 9 — R. Adrian Lanning, Noblesville (1991)
 10 — Nicholas L. Polite, Hammond (1992)
 11 — Jack W. Higgins, Kokomo (1990)
 12 — John R. Thomas, Fort Wayne (1991)
 13 — Alfred C. Cox, South Bend (1992)
 RMS — John H. Fallon, Indianapolis (1990)
 MSS — Todd Rumsey (1990)
 *Chairman

ALTERNATE TRUSTEES (Terms end in October)

District

1 — Bruce W. Romick, Evansville (1991)
 2 — Jerome E. Melchior, Vincennes (1992)
 3 — Richard P. Gardner, New Albany (1992)

4 — George L. Alcorn, Madison (1991)
 5 — Roland M. Kohr, Terre Haute (1991)
 6 — Ray A. Haas, Greenfield (1992)
 7 — Ronald G. Blankenbaker, Indianapolis (1991)
 7 — Wilis W. Stogsdill, Indianapolis (1991)
 7 — Charles O. McCormick III, Greenwood (1991)
 8 — John V. Osborne, Muncie (1991)
 9 — Stephen D. Tharp, Frankfort (1992)
 10 — Frank M. Sturdevant, Valparaiso (1991)
 11 — Laurence K. Musselman, Marion (1992)
 12 — Charles M. Frankhouser, Fort Wayne (1992)
 13 — Richard J. Houck, Michigan City (1991)
 RMS — Lynn L. Witty, Anderson (1990)
 MSS — Carla Brumbaugh, Indianapolis (1990)

AMA DELEGATES (Terms end Dec. 31)

Marvin E. Priddy, Fort Wayne (1991)
 Peter R. Petrich, Attica (1991)
 Herbert Khalouf, Marion (1991)
 John A. Knote, Lafayette (1990)
 Alvin J. Haley, Carmel (1990)
 George T. Lukemeyer, Indianapolis (1990)

AMA ALTERNATE DELEGATES (Terms end Dec. 31)

John D. MacDougall, Beech Grove (1991)
 William C. Van Ness II, Summitville (1991)
 Richard L. Reedy, Yorktown (1991)
 Shirley Thompson Khalouf, Marion (1990)
 Max N. Hoffman, Covington (1990)
 Edward L. Langston, Indianapolis (1990)

DISTRICT OFFICERS AND MEETINGS

1 — Pres: Taft W. Roe, Evansville
 Secy: Richard T. Tibbals, Evansville
 Annual Meeting: May 31, 1990
 2 — Pres: Betty J. Dukes, Dugger
 Secy: Steve Du Pre, Sullivan
 Annual Meeting: May 18, 1990
 3 — Pres: Richard P. Gardner, New Albany
 Secy: C. M. Hocker, New Albany
 Annual Meeting: May 9, 1990
 4 — Pres: Howard C. Jackson, Madison
 Secy: Warren R. Rucker, Madison
 Annual Meeting: May 2, 1990
 5 — Pres: Roland M. Kohr, Terre Haute
 Secy: Peggy Sankey-Swain, Rockville
 Annual Meeting: Sept. 27, 1990
 6 — Pres: Daniel P. Rains, New Castle
 Secy: Dennis L. Roberts, Shelbyville

Annual Meeting: May 9, 1990
 7 — Pres: George A. Donnally, Mooresville
 Secy: H. Marshall Trusler, Greenfield
 Annual Meeting: 1990
 8 — Pres: Susan K. Pyle, Union City
 Secy: Jerome M. Leahy, Union City
 Annual Meeting: June 6, 1990
 9 — Pres: Peter R. Petrich, Attica
 Secy: R. Adrian Lanning, Noblesville
 Annual Meeting: June 13, 1990
 10 — Pres: Thomas A. Brubaker, Munster
 Secy: Barron M. Palmer, Hammond
 Annual Meeting: June 20, 1990
 11 — Pres: James E. Duncan, LaFontaine
 Secy: Fred C. Poehler, La Fontaine
 Annual Meeting: Sept. 19, 1990
 12 — Pres: Mark S. Souder, Auburn
 Secy: John A. Egli, Topeka
 Annual Meeting: Sept. 20, 1990
 13 — Pres: Thomas J. Eberts, South Bend
 Secy: John W. Schurz, South Bend
 Annual Meeting: Sept. 12, 1990

COMMISSION CHAIRMEN

Constitution and Bylaws
 Helen E. Czenkusch, Indianapolis
Legislation
 Eugene G. Roach, Anderson
Physician Assistance
 Dolores Burant, Elkhart
Medical Services
 Dallas E. Coate, Lebanon
Medical Education
 James E. Carter, Indianapolis
Sports Medicine
 Ronald G. Blankenbaker, Indianapolis

COMMITTEE CHAIRMEN

Medical Malpractice (Ad Hoc)
 George T. Lukemeyer, Indianapolis
Grievance
 Richard B. Schnute, Indianapolis
Indiana Medical Foundation
 Frank B. Ramsey, Indianapolis

CHAIRMEN OF ISMA SPECIALTY SECTIONS

ALLERGY
 Paul D. Isenberg, Indianapolis
ANESTHESIOLOGY
 Stephen F. Dierdorf, Indianapolis
CUTANEOUS MEDICINE
 Peter L. Winters, Indianapolis
DIRECTORS MEDICAL EDUCATION
 Stephen Jay, Indianapolis
EMERGENCY MEDICINE
 Thomas C. Madden, Greenwood
FAMILY PRACTICE
 Dallas E. Coate, Lebanon
INTERNAL MEDICINE
 Paul T. Batties, Indianapolis
MEDICAL DIRECTORS AND STAFF PHYSICIANS OF NURSING FACILITIES
 Hugh K. Thatcher, Indianapolis
NEUROLOGICAL SURGERY
 Marvin R. Bernard, Merrillville
NEUROLOGY
 Charles A. Bonsett, Indianapolis
NUCLEAR MEDICINE
 Mike Mullnix, Indianapolis

OBSTETRICS & GYNECOLOGY
 Philip N. Eskew Jr., Carmel
OPHTHALMOLOGY
 D. Dean Coheld, Bloomington
ORTHOPEDIC SURGERY
 James G. Buchholz, Fort Wayne
OTOLARYNGOLOGY, HEAD & NECK SURGERY
 William F. Cooper, Columbus
PATHOLOGY & FORENSIC MEDICINE
 Arthur C. Jay, Columbus
PEDIATRICS
 Michael A. Hogan, Indianapolis
PHYSICAL MEDICINE AND REHABILITATION
 Arden Pletzer, Anderson
PREVENTIVE MEDICINE AND PUBLIC HEALTH
 Gary A. Babcoke, Chesterton
PSYCHIATRY
 Patricia Sharpley, Indianapolis
RADIOLOGY
 Daniel R. Elliott, Indianapolis
SURGERY
 Ted W. Grisell, Indianapolis
UROLOGY
 Earl H. Johnson, Indianapolis

ISMA KEY STAFF

Richard R. King, *Executive Director*
 Michael Huntley, *Director of Member Services*
 John Wilson, *Director of Finance*
 Adele Lash, *Director of Communications*
 Mike Abrams, *Interim Director of Government Relations*
 Ronald Dyer, *General Counsel*
 Richard Ryan, *Field Services*
 Bob Sullivan, *Field Services*
 Janna Kosinski, *Field Services*
 Dana Wallace, *Computer Services*
 Susan Grant, *Executive Assistant*
 Mary Alice Cary, *Executive Assistant*
 Rosanna Iler, *Membership, Auxiliary, Students*
 Tom Martens, *Members Health Insurance, CME Coordinator*
 Carolyn Downing, *Specialty Society Services*
 Tina Sims, *INDIANA MEDLINE*

■ news briefs

Dr. Kleit to be honored

Stuart A. Kleit, M.D., Indianapolis, will be honored at the April 28 "Flying Colors" Dinner Dance sponsored by the National Kidney Foundation of Indiana.

Tribute will be paid to Dr. Kleit for his dedication to nephrology and to the patients who suffer from kidney disease. As chief of the Nephrology Section and director of the dialysis unit at the Indiana University School of Medicine for 21 years, he has had a direct impact on the quality of care given by most of the physicians who treat kidney patients throughout the state.

He was a founder of the National Kidney Foundation of Indiana and the first chairman of the Indiana State Board of Health Renal Disease Advisory Committee. He spearheaded a state effort to ensure financial and emotional support for renal dialysis patients and to promote inquiry into the causes and eradication of kidney disease.

Under Dr. Kleit's direction, the *American Journal of Kidney Diseases* was founded in 1981. He received the Martin Wagner Memorial Award, the National Kidney Foundation's highest tribute for volunteer efforts, in 1983.

The dinner dance will be held at the Westin Hotel in downtown Indianapolis. Proceeds will be used to support research and education for patients with kidney disease.

Hoosier couple aiding hospitals in Latvia

Marion pathologist Roland Paegle and his wife, Grazina, are organizing a collection of used medical equipment for hospitals

in Latvia.

The couple spent three weeks in Latvia in January. After touring two hospitals and talking to doctors and nurses, Mrs. Paegle said they realized the medical facilities there often lack the most basic supplies and need "anything and everything that you can possibly think of because they have absolutely nothing."

Supplies that are needed include beds, microscopes, EKG monitors, x-ray equipment, baby bottles and disposable needles. The couple is contacting officials at Indiana hospitals to obtain donations and also plans to ask medical equipment manufacturers to donate new or used equipment.

The Paegles said Latvian Popular Front officials have asked Popular Front board members to make sure the equipment will reach designated, needy hospitals and not end up on the black market.

Financial contributions also are being sought to help pay for packing and shipping the equipment.

As part of the effort, Dr. Ivars Krastins, president of the recently established Latvian Physicians Association, will visit Indiana in May to help solicit donations and to learn how to use the equipment. The Paegles said a bio-engineer also may visit to learn how to adapt the equipment for Latvian facilities and how to obtain spare parts.

The Latvian Community Center in Indianapolis has agreed to help arrange pick-up and storage of equipment until it is shipped.

Those who have equipment to donate may contact Dr. Paegle at 804 Quarry Road, Marion, IN

46952, (317) 662-0077, or Konstantins Sventeckis, chairman of the Latvian Community Center, (317) 255-1211, to arrange pick-up.

ADA Camp John Warvel to be held at new location

The American Diabetes Association (ADA), Indiana Affiliate, has announced that Camp John Warvel for children ages 7 through 15 will be moved to a new location in northern Indiana.

This summer, the camp will be held at Camp Alexander Mack in Kosciusko County. Camp Warvel has been providing a camping retreat for youngsters with insulin-dependent diabetes for 34 years. Campers learn the skills necessary to properly manage their disease while enjoying fellowship with others facing the same problems.

For more information or for a camp brochure, call the ADA, Indiana Affiliate office, (317) 352-9226 or 1-800-228-2897.

Thiazide use may reduce incidence of hip fractures

The results of two separate studies were published in the Feb. 1, 1990, issue of the *New England Journal of Medicine* and the Feb. 2, 1990, issue of the *Journal of the American Medical Association*.

One study links the use of thiazide, a hypertension drug, with a 30% decrease in the incidence of hip fractures among users. According to the study, thiazides lower the urinary excretion of calcium, which may contribute to increased bone density.

The other study revealed that a decrease in bone mass can demonstrate a risk of hip fractures in women older than 65. □

William B. Adams, M.D.

Dr. Adams, 83, a retired anesthesiologist, died Feb. 4 in Ball Memorial Hospital in Muncie.

He was a 1932 graduate of the Washington University Medical School in St. Louis and served a two-year residency at Methodist Hospital in Indianapolis.

Dr. Adams was a member of the Ball Memorial Hospital medical staff and practiced medicine nearly 40 years before retiring. He was certified by the American Board of Anesthesiology.

Werner L. Loewenstein, M.D.

Dr. Loewenstein, 80, a retired general practitioner, died Feb. 6 at his home in Terre Haute.

He was a graduate of the University of Berlin Medical School and a member of the ISMA Fifty Year Club.

Dr. Loewenstein was a member and a past president of the medical and surgical staffs at St. Anthony's and Terre Haute Regional hospitals. He received the Bronze Star, the Medical Combat Badge, European, African and Middle Eastern Campaign medals with Four Battle Stars, the Victory Medal, the Army of Occupation Medal and the American Cam-

paign Medal as a major in the Army Medical Corps during World War II.

Robert M. Raber, M.D.

Dr. Raber, 68, a retired Indianapolis plastic surgeon, died Feb. 3.

He was a 1944 graduate of the Indiana University School of Medicine and a Navy veteran of World War II and the Korean War.

Dr. Raber, who retired in 1989, was certified by the American Board of Surgery and the American Board of Plastic Surgery. He was an Eagle Scout.

Glenn R. Shaw, M.D.

Dr. Shaw, 59, a retired obstetrician and gynecologist, died Dec. 30 at his home in Bluffton.

He was a 1955 graduate of the University of Cincinnati Medical School and joined the medical staff of Caylor-Nickel Medical Center in 1966. He was a past director and member of the executive committee of Caylor-Nickel Hospital, where he served as director until his retirement.

Dr. Shaw also served as chief of staff of obstetrics and gynecology at the U.S. Army Hospital in Vedun, France, and at Fort Eustis

Army Hospital in Fort Eustis, Va. He was certified by the American Board of Obstetrics and Gynecology.

Lowell I. Thomas, M.D.

Dr. Thomas, 81, a retired Indianapolis orthopaedic surgeon, died Jan. 17.

He was a 1936 graduate of the University of Nebraska Medical School and an Army veteran of World War II.

Dr. Thomas was certified by the American Board of Orthopaedic Surgery and a member of the ISMA Fifty Year Club.

Richard J. Shelley, M.D.

Dr. Shelley, 67, an Indianapolis obstetrician and gynecologist, died Feb. 22.

He graduated from the St. Louis University School of Medicine in 1954 and was an Army veteran of World War II.

Dr. Shelley was a member of the medical staffs of Community Hospital East and Hawley Army Community Hospital at Fort Benjamin Harrison. He was a member of the American College of Obstetricians and Gynecologists and the American Society of Abdominal Surgeons. □

Memorials: Indiana Medical Foundation

The Indiana Medical Foundation Inc., was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of INDIANA MEDICINE. Contributions made to the foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for federal estate and gift tax purposes.

The foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

J. Melvin Masters, M.D.
Nancy A. Roeske, M.D.
Richard Sharp

John W. Beeler, M.D.
Mildred Ramsey
Earl Mericle, M.D.

John Bush
Dallas McKelvey

Dr. Charles P. Taliercio has joined Nasser, Smith and Pinkerton Cardiology, Inc. in Indianapolis; he holds board certification from the American Board of Internal Medicine and the American Board of Cardiology.

Dr. Douglas P. Zipes, Indianapolis, was awarded the Scientific Councils Distinguished Achievement Award during the American Heart Association's 62nd Annual Scientific Sessions held last November in New Orleans.

Dr. Randolph W. Lievertz, an Indianapolis family practitioner, spoke at the symposium on "Aging in the '90s," sponsored by the Illinois Academy of Family Physicians; his lecture was titled "The Menopausal Patient in Family Practice." Dr. Lievertz also spoke on the "Update on the Treatment of Sexually Transmitted Diseases" at a CME course at the Candell Memorial Hospital in Libertyville, Ill.

Dr. Christopher Stack, Noblesville, was inducted as a fellow of the American Academy of Orthopaedic Surgeons during ceremonies at the academy's 57th annual meeting in New Orleans.

Dr. Frank P. Lloyd Jr., an Indianapolis oncologist, has received a three-year appointment as Cancer Liaison Physician for the Cancer Program at Methodist Hospital of Indiana, Indianapolis.

Dr. Richard G. Huber, a Bedford family practitioner, was included in the 1990-91 *Who's Who in the Midwest*.

Dr. William T. Paynter, medical director of Wishard Hospital in Indianapolis and an associate dean of the Indiana University School of Medicine, has retired.

Dr. Jack A. Morgenstern, a Fort Wayne psychiatrist, has been appointed medical director, and Dr.

Physician Recognition Award recipients

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Ansbro, John F., Evansville
Bermudez-Webb, Nini M., Indianapolis
Byrne, Frank D., Fort Wayne
Cahn, Peter H., Indianapolis
Dalsing, Michael C., Indianapolis
Duncan, David M., Fortville
Elleman, John H., Kokomo
Emkes, Bernard J., Indianapolis
Feldman, Howard E., Munster
Jeevan, Raj, Terre Haute
Kane, Jack L., Indianapolis

Karpik, Alice G., Munster
Kilgore, Byron W., Fort Wayne
Lohmuller, Herbert W., Bluffton
Martin, Freeman, Indianapolis
Nowak, Gregory S., Elkhart
Nowzaradan, Philip, Valparaiso
Pierce, William J., Merrillville
Wass, Justin L., Indianapolis
Welk, Gordon D., Rossville
Wu, L.Y. Frank, Indianapolis
Young, Steven R., Carmel

Ned P. Masbaum, an Indianapolis psychiatrist, has been appointed adult unit service director of Charter Hospital of Indianapolis.

Dr. Frank D. Byrne III, Fort Wayne, has been elected a fellow of the American College of Physicians.

Dr. Malcolm O. Scamahorn, a retired Pittsboro family practitioner, will serve another four-year term on the Hendricks Community Hospital Board of Trustees.

Dr. Dean L. Cook, a South Bend radiologist, was elected president, and **Dr. Thomas L. Sutula**, a South Bend family practitioner, was elected a member of the Elkhart County Board of Health.

Dr. Steven Lucks, a Zionsville anesthesiologist, was elected secretary/treasurer of the Witham Memorial Hospital medical staff. **Dr. Paul H. Schaak**, a Thorntown general practitioner, was elected vice chief of staff.

Dr. C. Kurt Alexander was

named medical director of The Optifast® Program at Ball Memorial Hospital in Muncie.

Dr. Donald E. Claybrook, a Terre Haute urological surgeon, was elected to the Union Hospital Foundation Board of Directors.

The medical and dental staff of Union Hospital in Terre Haute has elected **Dr. William E. Scully**, chief of staff; **Dr. Jesus F. Pangan**, president; **Dr. Esfandiar Safayan**, vice president; **Dr. Grace L. Walker**, treasurer; and **Dr. Richard S. Mayrose** secretary.

Dr. Ruth S. Bainbridge, a Marion family practitioner, has been named director of the emergency room at Marion General Hospital.

Dr. Mohammad Arshad, medical director of substance abuse services at Kingwood Hospital in Michigan City, has been elected president of the hospital's medical staff.

Dr. James F. Rimel, a Plymouth surgeon, has retired after 34 years of practice. □

New ISMA members

Thomas A. Ambrose II, M.D., Indianapolis, orthopaedic surgery.

Mason R. Baker, M.D., Brownstown, family practice.

Jonathan A. Berger, M.D., Fort Wayne, diagnostic radiology.

John T. Beuker, Angola, orthopaedic surgery.

Richard L. Carson, M.D., Connersville, general surgery.

Trina C. Chapman-Smith, M.D., Auburn, family practice.

Stanley P. Coe, D.O., Fort Wayne, family practice.

Roger C. Collicott, M.D., Lafayette, family practice.

Daniel J. Daluga, M.D., Lafayette, orthopaedic surgery.

Jagdish S. Dave, M.D., Logansport, anatomic/clinical pathology.

Rank O. Dawson, M.D., Indianapolis, plastic surgery.

Marian P. Demus, M.D., Crown Point, diagnostic radiology.

Brian C. Douglas, M.D., Indianapolis, anesthesiology.

William L. Driehorst, M.D., Carmel, emergency medicine.

Michael R. Engel, D.O., Fort Wayne, family practice.

Matthew E. Faber, M.D., Fort Wayne, ophthalmology.

William R. Finkelmeier, M.D., Indianapolis, vascular surgery.

Peggy H. Fishman, M.D., New Albany, ophthalmology.

John T. Gallagher, M.D., Brownstown, family practice.

Lynette Green-Mack, M.D., Indianapolis, physical medicine and rehabilitation.

William A. Harter, M.D., Fort Wayne, family practice.

Wei-Li Huang, M.D., Indianapolis, anatomic pathology.

Philip E. Johnston, M.D., Indianapolis, family practice.

Christopher S. Jones, M.D., Indianapolis, plastic surgery.

Rose Marie Jones, M.D., Indianapolis, general surgery.

Jeffrey L. Justice, M.D., Fort Wayne, general surgery.

Michael A. Kinzer, M.D., Fort Wayne, diagnostic radiology.

Peter F. Kunz, M.D., Indianapolis, plastic surgery.

Iris T. Legaspi, M.D., Munster, family practice.

S. Chace Lottich, M.D., Greenwood, general surgery.

Marion F. McNamara, M.D., Indianapolis, vascular surgery.

Ann T. Moriarty, M.D., Indianapolis, anatomic/clinical pathology.

Michael E. Myers, M.D., Fort Wayne, family practice.

David R. Pennes, M.D., Indianapolis, radiology.

Jeffrey L. Schaffer, M.D., Jasper, obstetrics and gynecology.

Rodney W. Smith, M.D., Valparaiso, emergency medicine. □

Licensing board honors Dr. Miller



John D. Miller, M.D., (right) accepts a plaque from **John T. Hinton, D.O.**, in recognition of his 10 years of service on the Indiana Medical Licensing Board. Dr. Hinton is current president of the board.

John D. Miller, M.D., Bluffton, was honored Feb. 22 for his 10 years of service on the Indiana Medical Licensing Board. Dr. Miller was recognized during a special program held at the licensing board meeting in Indianapolis.

Gov. Evan Bayh, in proclaiming Feb. 22 John D. Miller, M.D., Day in Indiana, said "through Dr. Miller's leadership and devotion, he has been instrumental in making the Indiana Medical Licensing Board one of the premier boards in the United States."

Dr. Miller served as board president for seven years, vice-president for two years and treasurer for one year. A specialist in chest diseases, Dr. Miller has held many professional appointments and

consulting and administrative positions. He has been assistant director of hospitals for the Health and Hospital Corp. of Marion County, director of pulmonary disease service at Wishard Memorial Hospital, chairman of the Indiana Tuberculosis Council, president of the Mississippi Valley Conference on Chest Disease and director for Indiana to the American Lung Association in New York. He is a Murray E. Auerbach Medalist of the American Lung Association of Indiana and a Sagamore of the Wabash.

Dr. Miller is a member of the staff at Caylor-Nickel Hospital in Bluffton and is serving his seventh term as president of the board of directors of the Caylor-Nickel Clinic. □

■ classifieds

FAMILY PRACTICE group of three seeks new partner. Well-established clinic in small farming community about 30 miles north of Indianapolis. Hospital two miles away. Guaranteed first-year salary plus good benefits. Send CV to Dr. Les Hart, 12945 N. Harrison Dr., Carmel, IN 46032 or call nights, (317) 575-8517.

EMERGENCY STAFF PHYSICIAN – Flexible scheduling in low-volume emergency department for experienced candidate. Progressive, expanding primary care hospital. Extensive pre-hospital services. CT scan, remodeled ICU, excellent staff support. Paid malpractice. Health insurance option. A.C.L.S. required. A.T.L.S. desirable. Please contact D.M. Duncan, M.D., Rush Memorial Hospital, 1300 N. Main St., Rushville, IN 46173, (317) 932-4111.

PHYSICIANS NEEDED "TO JUST PRACTICE MEDICINE" – Board-certified/eligible. Full-time family practitioner or general internist needed by July 1990. Immediate opening for full-time pediatrician. Seeking physicians interested in working with a multi-disciplinary team, providing primary care to low-income and minority patients within a community health care setting. Facility located 15 miles north of Cincinnati. Hospital affiliation and shared on-call required. Competitive salary, paid benefits/time for CME attendance. Submit CV to Lincoln Heights Health Center, Inc., 1171 Adams St., Cincinnati, OH 45215, Attn: Medical Director.

MICHIGAN CITY, IND. – Seeking full-time and part-time emergency physicians for 99-bed, low-volume, hospital emergency department within one-hour drive of Chicago. Excellent compensation, paid malpractice and full benefit package to full-time staff. Opportunity for advancement. Contact Emergency Consultants, Inc., 2240 S. Airport Road, Room 20, Traverse City, MI 49684, 1-800-253-1795 or, in Michigan, 1-800-632-3496.

OB-GYN / PEDIATRICS / FAMILY PRACTICE / INTERNAL MEDICINE – Several attractive opportunities in INDIANA, WISCONSIN and MICHIGAN (many on lakes) for BC/BE physicians. Contact Bob Strzelczyk to discuss your practice requirements and these positions. STRELCHECK & ASSOCIATES, INC., 12724 N. Maplecrest Lane, Mequon, WI 53092, 1-800-243-4353.

PRIMARY CARE PHYSICIAN – Marshfield Clinic is seeking a primary care physician to join its expanding seven-member emergency medicine department. Emergency medicine, urgent and ambulatory care, plus supervision and training of ER staff, contribute to a very stimulating practice environment. More than 26,000 ER visits and 13,000 ambulatory care visits annually. Specialists representing all branches of medicine and surgery provide support care and services. Marshfield Clinic is a private group practice consisting of 350 physicians and is physically adjacent to St. Joseph's Hospital, a 525-bed acute care teaching facility. Send curriculum vitae to John P. Folz, Assistant Director, Marshfield Clinic, 1000 N. Oak Ave., Marshfield, WI 54449, or call collect, (715) 387-5181.

ILLINOIS – Near Springfield. Another OB/GYN needed to join group. 36,000 population. 650 deliveries. 160-bed hospital with group office on campus. Sound economy, recreational lake, excellent schools. Salary, office, all benefits, partnership. Call Dr. Walter Smith, 1-800-221-4762 or collect, (212) 599-6200.

DIRECTOR, BUREAU OF FAMILY HEALTH SERVICES – The Indiana State Board of Health is recruiting for a director of the bureau of family health services. The position requires extensive public health, administrative and supervisory experience. M.D. and/or Ph.D. highly desirable. The bureau director has full responsibility for managing and developing goals and

priorities for the dental, nutrition (WIC), maternal and child health and child specialty services divisions. Work involves developing effective screening and prevention programs, referral services, educational programs and promotional programs geared toward providing and enhancing the health and welfare of families. The bureau director provides oversight and general management of the total bureau budget of more than \$47 million and 80 staff positions. Salary negotiable. Excellent fringe benefits. Qualified applicants should send a resume and letter of interest to Nancy C. Blough, J.D., Assistant Commissioner for Health Maintenance, Indiana State Board of Health, 1330 W. Michigan St., Indianapolis, IN 46206-1964. Equal opportunity employer.

INTERNIST – GREAT OPPORTUNITY. Very busy, young, solo internist seeking ambitious associate. Family-oriented community on Lake Winnebago with a population of 40,000. No HMOs or PPOs. A unique opportunity for someone who is genuinely interested in internal medicine and its subspecialties. An interest in critical care would be of importance. Send CV to Michael Sergi, M.D., 14 N. Main St., Fond du Lac, WI 54935.

MAGLIO & COMPANY, INC., Physician Search, presents excellent practice opportunities in your home state and the Midwest to physicians in all specialties. No fees to physician candidates; hospitals, clinics, etc. pay our retained fees. Free CV service. Call toll-free for more information, 1-800-999-4731, or send CV to Jackie Laske, Maglio & Company, Inc., 450 N. Sunnyslope Road, Brookfield, WI 53005.

BOARD-CERTIFIED PODIATRIST seeking to share part-time office space within 60 miles of Indianapolis area. General or family practitioner preferred. Contact: Robert S. Mandresh, D.P.M., 3764 N. Meridian, Indianapolis, IN 46208.

BOARD-CERTIFIED family practice physician wanted for busy northside Indianapolis practice. Competitive salary, bonus. Send CV and references to: P.O. Box 80433, Box 286, Indianapolis, IN 46280.

ATTENTION INVESTORS: Great investment opportunity available with an established construction company building the finest single-family homes at prestigious Eagle Village addition, within walking distance of Eagle Creek Golf Course. (317) 852-6966.

PEDIATRIC PARTNER NEEDED - Community: small town atmosphere, populous drawing area. School: national honors. Cultural: University town, 50 miles from Chicago. Economics: Greatest per capita income in state. Malpractice: Lowest rates in nation. Pediatric practice: 25 years, still expanding. Office: Spacious suite in four-year-old medical building, other specialties associated, lab and x-ray. Hospital: all services, superior neonatal unit. Send CV and practice goals to: Thomas J. Covey, M.D., F.A.A.P., 2101 Comerford Road, Suite 3, Valparaiso, IN 46383.

GREAT LAKES LOCALE - OB/GYN to join multi-specialty group in popular lakeside community. Competitive compensation and professional liability. Modern facility adjacent to 200-bed hospital, professional physician and support staff, state-of-the-art diagnostic services. Contact: Barbara Fahl, Administrator, LakeShore Medical Center, 1507 Wabash St., Michigan City, IN 46360, (219) 873-3030.

FOR SALE: Refurbished medical instruments. Criticon Monitor, H.P. Monitors, Ohio anesthesia machines, Coulter counter, electrocardia, electrosurgery, cryosurgery, exam tables, O.R. and exam lights. Contact Bernard Medical Resources, 1555 Dixie Highway, Park Hills, KY 41011, or call (606) 581-5205.

FOR SALE - Top quality examination table. Excellent condition. Doctor retiring. \$800 or best offer. (317) 872-3599.

PRACTICE FOR SALE - Busy, well-established family practice for sale. South central Indiana location. Space and business easily supports one or two physician practice. Office space available for purchase or lease. Well-equipped, modern 250+ bed hospital facility. Community offers high-quality lifestyle with exceptional recreational opportunities, fine school system and excellent cultural activities. Conveniently located to major metropolitan areas of Louisville, Indianapolis and Cincinnati. Don't miss this opportunity to step right into an ongoing practice. Terms available. For more information, contact: David A. Rogers, Professional Economics, Inc., 1633 N. Capitol, Suite 105, Indianapolis, IN 46202, (317) 925-7606.

FULL-TIME PEDIATRICIAN needed to work as an independent contractor at Grissom AFB. Outpatient clinic is open Monday-Friday from 8 a.m. to 5 p.m. Patients are scheduled in advance at 15-minute intervals. Spectrum provides you with a LPN and handles all billing. You will be reimbursed a guaranteed rate with the potential of monthly overage. Yearly CME allowances, low-cost occurrence malpractice insurance and relocation assistance. Contact Ben Hatten, Spectrum Emergency Care, P.O. Box 27352, St. Louis, MO 63141, 1-800-325-3982, ext. 3004.

FAMILY PRACTICE - Hospital-sponsored clinic opportunity. Dynamic, growth-oriented hospital in beautiful north central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit pack-

age that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435, (612) 835-5123.

INTERNIST/FAMILY PRACTICE - Available July 1990. Accredited ambulatory care facility provides medical services to student clientele. Full-time, 11-month position. Competitive salary/benefit package and 40-hour week. Qualifications: M.D./D.O. degree, ability to obtain Illinois license, current DEA registration and board eligible/certified. Search continued until position filled. Contact Glenn Weiss, Medical Director, Student Health Service, Illinois State University, Normal, IL 61761, (309) 438-8655. Women and minorities are encouraged to apply. Affirmative Action/Equal Opportunity Employer.

POSITION AVAILABLE with thriving three-clinic urgency care corporation. Practice heavily emphasizing industrial, sports medicine and wellness programs. Regular work week, no call. Assistant medical director available. Salary and benefits in six figures. Contact Dr. Dean Elzey, (219) 489-2772.

FAMILY PHYSICIAN and general surgeon sought for lovely growing northeast Indiana town. Join existing practices or enjoy solo with coverage. Forty miles from major city, this community offers both rural and city advantages. Excellent income guarantee and benefits, progressive modern hospital with young medical staff and low malpractice. Contact, in confidence, Cheryl Broderick, (508) 688-9063, collect. E.G. Todd is a physician search firm, with opportunities nationwide in all specialties. All inquiries confidential. Fees paid by

■classifieds

clients, not physician candidates.

FOR RENT – Naples, Fla. Week minimum. Condominium near Ritz Carlton with one bedroom plus sofa sleeper. Bayside view, one block to ocean. Rooftop swimming pool, other amenities. Call for mailing. (317) 231-7253 days; (317) 842-6655 or (317) 823-0577 evenings.

EMERGENCY MEDICINE – Terre Haute, Ind. Local group seeking full-time career-oriented emergency physician for position in low- and moderate-volume departments. Flexible scheduling, very competitive compensation package. Send CV or contact William R. Grannen, Priority Health Care, P.C., 7179 Lamplite Ct., Cincinnati, OH 45244, (513) 231-0922.

MULTIPLE AND VARIED physician practice opportunities currently exist in the state of Indiana. Contact Patti Quiring at (317) 633-6444 at work or (317) 823-4746 at home. Patti is a physician recruiter for Technical Resource Group, which

is an executive search firm headquartered in Indianapolis.

INDIANAPOLIS, IND. – MetroHealth, a division of Methodist Hospital, is seeking board-certified or board-eligible physicians for the departments of family practice, internal medicine and obstetrics/gynecology. We are an established multi-specialty physician group offering an attractive compensation package and professional liability. Please contact: Joyce Irwin, Human Resources, MetroHealth, P.O. Box 1367, Indianapolis, IN 46206, (317) 929-2721.

EMERGENCY PHYSICIANS WANTED – For Fayette Memorial Hospital in Connorsville, Ind. Will consider all physicians with emergency medicine experience. 15,000 visits/year. Fee-for-service group does its own billing. Hourly compensation based on training, experience and qualifications. Excellent fringe benefit package includes, life, health, disability and malpractice insurance plus CME allowance, ACEP and ISMA dues, pension

plan and potential bonus. Contact: Michael D. Bishop, M.D., FACEP, Emergency Care Physicians, 640 S. Walker St., Suite A, Bloomington, IN 47403, (812) 333-2731.

FAMILY PHYSICIAN, general practitioner or internist wanted to join three-man group in west central Indiana. Competitive salary and percentage arrangement. Partnership arrangement possible after one year. Contact Frank Swaim, M.D., Parke Clinic, 503 Anderson St., Rockville, IN 47872, (317) 569-3182.

CENTRAL INDIANA – Physician-owned emergency group accepting applications for full-time, career-oriented emergency physicians. Flexible work schedules and excellent benefit package. Part-time and directorship positions also available. Send CV or contact Sherry Bussel, Midwest Medical Management, Inc., 528 Turtle Creek, N. Drive, Suite F-4, Indianapolis, IN 46227, (317) 783-7474. □

Classified advertising rates

Classified advertisements are published as a service to members of the Indiana State Medical Association. Only ads considered to be of advantage to members will be accepted. Advertisements of a truly commercial nature (ie: firms selling brand products, services, etc.) will be considered for display advertising. All orders must be in writing and will automatically be set in regular classified type. Box numbers are not available.

Charges:

- * Indiana physicians25¢/word (\$5 min.)
- * Out-of-state physicians35¢/word (\$7 min.)
- * Hospitals/health care facilities50¢/word (\$10 min.)
- * Realtors/commercial recruitment and others75¢/word (\$15 min.)

Deadline: Six weeks preceding month of publication.

Payment procedure: Payment in advance is not required. Invoices and tearsheets are mailed to advertisers upon publication. INDIANA MEDICINE is issued on the 10th of each month.

Address: INDIANA MEDICINE, 3935 N. Meridian St., Indianapolis, IN 46208.

Advertisements for employment containing specifications as to race, creed, color, age, religion, sex, ethnic origin or national origin may be unlawful and professionally improper. Accordingly, discriminatory wording is not acceptable in INDIANA MEDICINE. In such a case, INDIANA MEDICINE will modify the wording and notify the advertiser of the change.



LAKE CHARLEVOIX

DISTINCTIVE LAKEFRONT AND
PARKWAY HOME SITES



Come enjoy the relaxing lifestyle of Lake Charlevoix. Immerse yourself in the luxury of your own private 18 acre lake, nature area and unmatched landscape. Special attention to every detail makes for a uniquely designed living community in one of Indianapolis' most desirable northside locations. Sites are limited. Call or visit Lake Charlevoix today.

Lake Charlevoix will include homes featuring the city's premier builders

- Jim Carriger
- Mark Conreux
- Rex Weiper
- Richard Carriger
- Steve Hoss
- Weston Development, Inc.
- Mandt, Inc.
- Will Wright

Marketed by



Lots priced from the 50's
Telephone: 255 9832

Located at 6420 Fall Creek Road between Shadeland Ave. and Kessler Blvd.
Hours: Weekdays 3 p.m. to 7 p.m. Saturday & Sunday 1 p.m. to 6 p.m.

Medical Equipment Leasing

— Find out how sensible it really is!

High technology equipment allows you to provide quality medical care right from your office. But it comes with some expense and risk. What makes diagnostic and economic sense today may not in five years.

Bell Atlantic TriCon Medical Finance can answer the difficult questions with a variety of finance options that help you acquire what you need economically. With our leasing program you can

have the use of state-of-the-art medical equipment without having to second guess the future. At the end of the lease period, you can decide if the equipment is still valuable to you. If it is, you can purchase it at a pre-determined price. If it is not, simply return it to Bell Atlantic.

We know how to take the pain out of equipment acquisition. Call for a comparative quote and special low member rates.



A member service offered through

 **Bell Atlantic**
TriCon Leasing

Medical Finance

For financial pain relief call: 1-800-322-0444



A Prescription More and More Physicians Are Ordering for Themselves.

Last year, an estimated 40,000 U.S. physicians were married to other physicians. The AMA realizes that there are unique challenges that come with having a dual-doctor family. That's why Indiana was chosen to participate in a two-year pilot study that offers a **25% dues reduction** when both physician members of a medical family join the AMA. Contact the Indiana State Medical Association at **317-925-7545** for information about this opportunity to cash in on the savings that could be waiting for you if you qualify.



American Medical Association

Are you reading this ad?

So are thousands of others. Reach more than 6,000 physicians with a display ad in *INDIANA MEDICINE*, the journal of the Indiana State Medical Association.

For additional information, contact
INDIANA MEDICINE, 3935 N. Meridian St.,
Indianapolis, IN 46208, (317) 925-7545.

Advertising index

American Cancer Society	274
American Medical Association	314
Bell Atlantic TriCon Leasing	313
Central Pharmaceuticals	257
International Tours	285
Lake Charlevoix	313
Lilly, Eli & Co.	253
Lincoln National Life	281
Merck Sharp & Dohme	Covers
Palisades Pharmaceuticals	248
Physicians Billing Service of Indiana	257
Physicians' Directory	286
Physicians Insurance Co. of Indiana	Cover
Postgraduate Medicine	244
Roche Laboratories	247, 248, 249, 279, 280
Spectrum Emergency Care	274
U.S. Air Force	263
U.S. Army National Guard	284
Van Ausdall + Farrar	251

In accepting advertising for publication, *INDIANA MEDICINE* has exercised reasonable precaution to ensure that only reputable, factual advertisements are included. However, we do not have facilities to make comprehensive or complete investigation, and the claims made by advertisers in behalf of goods, services, medicinal preparations, apparatus or physical appliances are to be regarded as those of the advertisers only. Neither sanction nor endorsement of such is warranted, stated or implied by the association.

Are you moving?

If so, please send change of address to the Indiana State Medical Association, Membership Department, 3935 N. Meridian St., Indianapolis, IN 46208, at least six weeks before you move.

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

County: _____

Office phone: _____ Home phone: _____

IMPORTANT - Attach mailing label from your last copy of *INDIANA MEDICINE* here:



VASOTEC[®]

(ENALAPRIL MALEATE | MSD)

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC[®] (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: Angioedema. Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuretics or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: General Impaired Renal Function: As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nifedipine, calcium-channeling agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy—Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 0.3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC[®] (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome: Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ¹⁴C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2367 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension), pulmonary embolism and infarction, pulmonary edema, rhythm disturbances, atrial fibrillation, palpitation.

Digestive: Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol%, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: Hypertension: In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed. If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance of up to approximately 30 mL/min (serum creatinine ≥ 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia: In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L or serum creatinine > 1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19380.

MSD
MERCK
SHARP
DOHME



THERAPY THAT MAY BE AS SILENT AS HYPERTENSION ITSELF

VASOTEC is generally well tolerated and not characterized by certain undesirable effects associated with selected agents in other antihypertensive classes.

VASOTEC is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor. A diminished antihypertensive effect toward the end of the dosing interval can occur in some patients.

For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

FOR MANY
HYPERTENSIVE PATIENTS
ONCE-A-DAY

VASOTEC®
(ENALAPRIL MALEATE | MSD)



INDIANA MEDICINE

The Journal of the Indiana State Medical Association

May 1990

Vol. 83, No. 5

Liability in the Operating Room

N.E. JOURNAL OF MED
10 SHATTUCK STREET
BOSTON

MA 02115

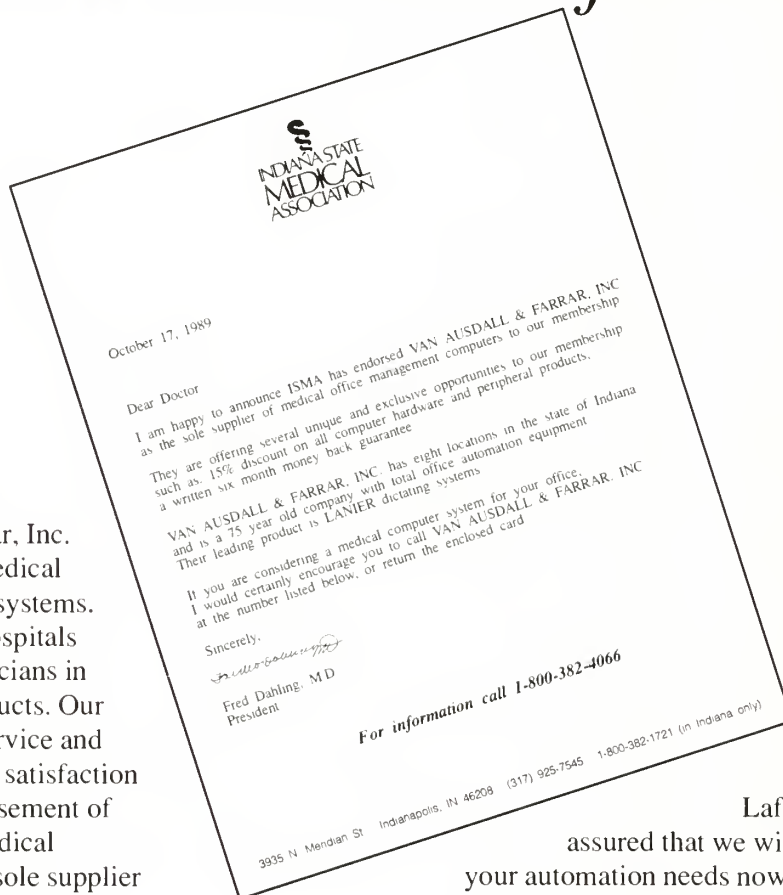
Before You Choose a Practice Management System, Check Out the Choice of the ISMA!

For over 75 years Van Ausdall & Farrar, Inc. has specialized in medical practice automation systems. Today 93% of the hospitals and 80% of all physicians in Indiana use our products. Our reputation for full service and guaranteed customer satisfaction has earned the endorsement of the Indiana State Medical Association as their sole supplier of medical computer systems.

Now Van Ausdall & Farrar has teamed up with Calyx Corporation to provide the total solution to your practice's needs. Calyx's MDX® software is the system of choice for more than 3,600 practices nationwide. MDX goes beyond the usual insurance and accounting functions to streamline procedures, increase efficiency and instantly access all the information you need with just a touch of your finger.



MDX is a registered trademark of Calyx Corporation



With eight offices to serve you in Indianapolis, South Bend, Fort Wayne, Terre Haute, Evansville, Columbus, Muncie and

Lafayette, you can be assured that we will be there to meet your automation needs now and in the future. So, before you choose your system, consider the #1 choice of the ISMA – **Van Ausdall & Farrar, Inc.**

For more information and a FREE video on MDX and hardware that's the right choice for your practice, fill out and mail in the coupon today. Or call us at (317) 634-2913.

Complete and Return for Your Free Video.
Van Ausdall & Farrar, Inc., 1214 North Meridian St.
Indianapolis, IN 46204

Name _____
Practice _____
Address _____
City _____ State _____ ZIP _____
Phone () _____ FAX () _____

VAIM-5

INDIANA MEDICINE

The Journal of the Indiana State Medical Association

May 1990

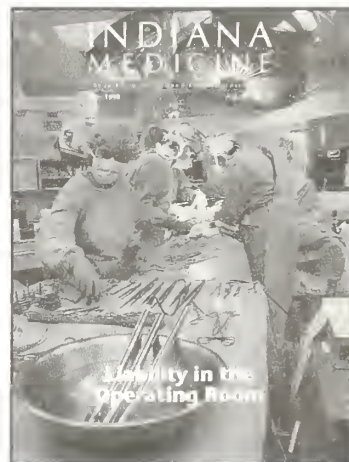
Vol. 83, No. 5

scientific contributions

- Epidermoid cyst of the spleen: A clinicopathologic correlation 326
- Making a rash diagnosis: Amoxicillin therapy in infectious mononucleosis 330
- Comparison of hip fracture mortality: 1946-1955 vs. 1982-1986 332
- Port wine stain: A new therapeutic approach for an old birth defect 336
- HAND CLINIC**
- de Quervain's stenosing tenosynovitis 340

features

- Indiana Medicine wins first prize** 342
- Sandoz Pharmaceuticals has awarded INDIANA MEDICINE first prize in its 15th annual journalism competition.
- Liability in the operating room** 344
- Practitioners must understand the liabilities that often arise when a patient alleges malpractice in an operating room.
- Indiana physicians prefer occurrence coverage** 348
- Some Indiana physicians are changing their medical professional liability coverage from occurrence to claims-made because of misinformation about or misunderstanding of claims-made coverage.
- Health issues adorn 'Christmas tree' bills** 350
- Highlights of a record-setting 1990 Indiana General Assembly.
- 1990 ISMA Leadership Conference** 352
- Photo coverage of this year's ISMA leadership conference.



Cover story on page 344. Cover photo by Rick Baughn, I.U.P.U.I. Learning Technologies. Cover design by Diane Alfonso, Indianapolis.

departments

- stethoscope 317
- from the museum 318
- what's new 322
- cme calendar 324
- drug names 335
- auxiliary report 355
- news briefs 376
- obituaries 377
- people 378
- classifieds 380

YOCON[®]

YOHIMBINE HCl

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it, however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon[®] is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.^{1,2} Also dizziness, headache, skin flushing reported when used orally.^{1,3}

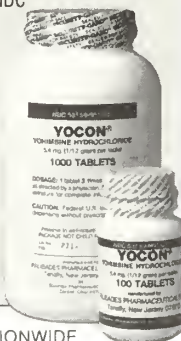
Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.^{1,3,4} 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.³

How Supplied: Oral tablets of Yocon[®] 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85



AVAILABLE AT PHARMACIES NATIONWIDE

**PALISADES
PHARMACEUTICALS, INC.**

219 County Road
Tenafly, New Jersey 07670
(201) 569-8502
1-800-237-9083

INDIANA MEDICINE

Devoted to the interests of the medical profession and public health in Indiana since 1908.

EDITOR

Frank B. Ramsey, M.D.

MANAGING EDITOR

Tina Sims

EDITORIAL ASSISTANT

Toni Settle

BUSINESS MANAGER

Richard R. King

CIRCULATION

Dotty Martens

EDITORIAL BOARD

Elton Heaton, M.D.

Richard N. Dexter, M.D.

(Terms expire Dec. 31, 1991)

Robert L. Rudesill, M.D.

Robert C. Ziss, M.D.

(Terms expire Dec. 31, 1992)

Thomas J. Conway, M.D.

I.E. Michael, M.D.

(Terms expire Dec. 31, 1990)

Mike Agostino

Mark Rodefeld

(Medical students)

CONSULTING EDITORS

Steven C. Beering, M.D.

Charles A. Bonsett, M.D.

Alvin J. Haley, M.D.

Rodney A. Mannion, M.D.

Alan T. Marty, M.D.

W.D. Snively Jr., M.D.

INDIANA MEDICINE (ISSN 0746-8288) is published monthly by the Indiana State Medical Association. Second-class postage paid at Indianapolis, Ind., and additional mailing offices.

Address correspondence relating to editorial material, advertising or subscriptions to: INDIANA MEDICINE, 3935 N. Meridian St., Indianapolis, IN 46208. Phone (317) 925-7545 or 1-800-969-7545 (in Indiana only).

Annual subscription rates for nonmembers: \$24 domestic, \$26 Canada, \$27 foreign. Medical library rates: \$22 domestic, \$23 Canada, \$24 foreign. Full-time Indiana medical students: \$12. Single copies not available. Subscriptions are renewable annually.

POSTMASTER: Send address changes to INDIANA MEDICINE, Indiana State Medical Association, c/o Membership Department, 3935 N. Meridian St., Indianapolis, IN 46208.

Views expressed do not necessarily reflect the opinions of the editors. No copyright is claimed, unless specifically indicated. Copyright rests solely with authors, who are responsible for statements in their articles. Scientific and editorial contributions are accepted for exclusive publication, subject to editorial requirements. Instructions for authors available upon request.

All issues since 1967 are available on microfilm from University Microfilms International, 300 N. Zeeb Road, Ann Arbor, MI 48106. Indexed in *Index Medicus* and *Hospital Literature Index*.

Advertising rates and data available upon request. INDIANA MEDICINE reserves the right to accept or reject advertising copy.

Indiana physicians sought for PRO study

Selected Indiana physicians soon will be asked to volunteer for a Health Care Financing Administration-sponsored pilot project to review care provided in physicians' offices. The Wisconsin Peer Review Organization (WiPRO) has contracted with the HCFA to conduct the study, and Sentinel Medical Review Organization in Indiana is one of seven PROs selected to participate. Greg Simmons of WiPRO told ISMA board members March 25 that 100 Indiana physicians would be asked to volunteer and 7,200 Indiana Medicare patient cases would be included in the study.

Physicians will be selected through Medicare claims data according to their volume of Medicare cases and their practice size, location and specialty. The PRO will request medical record copies, and physicians will be reimbursed for their photocopying costs.

The AMA opposes this pilot program because it is too costly in comparison to potential benefits and would add another layer of bureaucracy to HCFA. The AMA says the study will have a negative impact on patients and physicians and could discourage physicians from treating Medicare patients. The ISMA board was concerned about whether the HCFA, which is interested in costs, should be in charge of quality review. Members said the design and size of the survey sample raised questions about the validity of the outcome.

Indigent patient care focus of ISMA survey

ISMA members soon will be asked to provide information on how much free care they give to indigent patients. The ISMA will attempt to determine the amount of free care given by physicians through a survey that will be inserted in the June issue of ISMA Reports. Members are asked to complete the questionnaire and return it to the ISMA by July 1.

The survey is being done in response to Resolution 89-23, adopted by the House of Delegates last October. The Indiana Commission on Health Policy also has asked the ISMA to provide information on free care given to indigent patients.

All physicians ordered to file Medicare claims

Physicians are being advised of two recent Medicare developments.

Beginning Sept. 1, 1990, all physicians who treat Medicare patients must file Medicare claims for beneficiaries, whether or not the doctors accept assignment.

Physicians who notice drastic reductions in their maximum allowable charges (MAACs) should make note of the surgical procedure code and the percentage of reduction and send the information to Tina Dillard at the ISMA. She is compiling the information for future discussions with the Medicare carrier. Please include the 1989 MAAC amount and the 1990 MAAC amount. □

■ from the museum

By the early 1900s, the production of patent medicines in the United States represented a \$74.5 million industry. Part of the success of these purported cure-alls was the result of the manufacturers' emphasis on advertising.

The proprietors touted the virtue of their remedies in a variety of publications, including the almanac, a popular advertising method. The Indiana Medical History Museum has several of these in its collection.

In the 1820s and 1830s, patent medicine manufacturers advertised their products in commercial almanacs. By the 1840s, patent medicine proprietors began publishing their own almanacs, and by the end of the century, almost every manufacturer published one. Each year, just before Christmas, patent medicine producers distributed their almanacs to druggists nationwide. These almanacs became an important part of the American family's library.

Dr. David Jayne was one of the earliest manufacturers to publish an almanac. Jayne's almanac contained a complete list of the company's product line, including Jayne's Expectorant, Tonic Vermifuge, Specific for Tapeworm, Carminative Balsam and Hair Tonic. Moreover, the list detailed uses for each remedy. For example, Jayne's Expectorant was purported to cure asthma, colds, coughs, spitting of blood, whooping cough, soreness of the breast and difficult breathing.

The almanac also included a "catalogue of diseases," complete with frightening pictures of patients who failed to use the product. Finally, Jayne's almanac con-

tained certificates or testimonials from those who had successfully used the product.

Some proprietors tried novel approaches when publishing their almanacs. One manufacturer, Chi-chest-ers Diamond Brand Pills, produced an almanac the size of a postage stamp. The front cover beckoned the sick patient: "Relief at Last to all Suffering Women. Read Me! Keep Me!" Diamond Brand Pills were purported to relieve a variety of menstrual problems.

Other patent medicine producers took a more traditional approach when publishing their almanacs. Dr. Kilmer and Co. of Binghamton, N.Y., produced Swamp-Root, which purported to cure liver, bladder and kidney diseases, diabetes, dropsy, malaria, poor appetite, bad breath and "internal slime fever." The almanac, although more colorful than most, contained the traditional astronomical data, advice to farmers and other useful information.

Yet, Dr. Kilmer, like all patent medicine producers, bombarded the public with information about his product. He also told of the evils of kidney, liver and bladder problems. He warned his readers that "thousands have kidney trouble and don't know it." Moreover, he included the standard testimonials and an article from the *New York Sunday World* titled "The Great Swamp-Root Laboratory - The Finest of its Kind in the World." The author of the article focused on the "scientific" nature of the work performed in the laboratory.

Whatever strategy they pursued, patent medicine manufac-

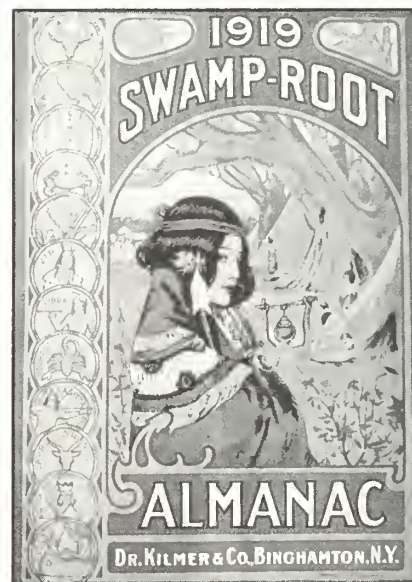
turers found the almanac an effective method of reaching the ailing masses. These almanacs, in turn, provide the medical historian with a glimpse of the patent medicine industry and the lengths to which proprietors would go to sell their products.

Museum exhibits

"A TREK into Medicine's Past: Technology, Research, Experimentation and Knowledge." Closes May 31.

"The Public's Response to Venereal Disease and AIDS." Opens in July. □

For more information on the Indiana Medical History Museum, contact the museum, 3000 W. Washington St., Indianapolis, IN 46222, (317) 635-7329.



This Swamp-Root Almanac was donated to the Indiana Medical History Museum by Mrs. John E. Jesseph.

Because safety
cannot be taken for granted
in H₂-antagonist therapy

AXID[®]
nizatidine

Minimal potential for drug interactions

Unlike cimetidine and ranitidine,¹
Axid does not inhibit the cytochrome
P-450 metabolizing enzyme system.²

Swift and effective H₂-antagonist therapy

- Most patients experience
pain relief with the first dose³
- Heals duodenal ulcer
rapidly and effectively^{4,5}
- Dosage for adults with active
duodenal ulcer is 300 mg once nightly
(150 mg b.i.d. is also available)

References

- 1 USP DI Update, September/October 1988, p 120.
- 2 Br J Clin Pharmacol 1985;20:710-713.
- 3 Data on file, Lilly Research Laboratories.
- 4 Scand J Gastroenterol 1987;22(suppl 136):61-70.
- 5 Am J Gastroenterol 1989;84:769-774.

AXID[®] nizatidine capsules

Brief Summary. Consult the package literature for complete information.

Indications and Usage: 1. *Active duodenal ulcer*—for up to eight weeks of treatment. Most patients heal within four weeks.

2. *Maintenance therapy*—for healed duodenal ulcer patients at a reduced dosage of 150 mg h.s. The consequences of therapy with Axid for longer than one year are not known.

Contraindication: Known hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other H₂-receptor antagonists.

Precautions: General—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests—False-positive tests for urobilinogen with Multistix[®] may occur during therapy.

Drug Interactions—No interactions have been observed with theophylline, chloridiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproductive studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect, but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions. Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGPT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antihypertensive activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H₂-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H₂-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H₂-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

PV 2098 AMP

[091289]

Additional information available to the profession on request.

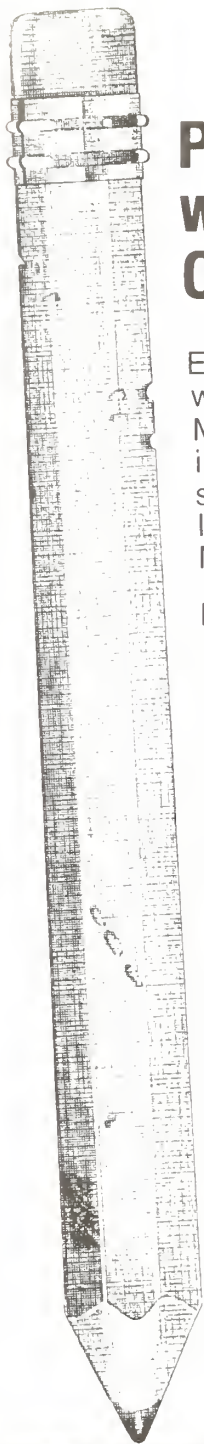
Eli Lilly and Company
Indianapolis, Indiana
46285

NZ-2924-B-049310

© 1990, ELI LILLY AND COMPANY

Axid[®] (nizatidine, Lilly)

Axid[®] (nizatidine, Lilly)



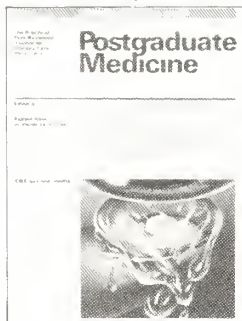
Pointing the way to more CME credit.

Earn more CME credit with Postgraduate Medicine's new and improved CME Program sponsored by the Interstate Postgraduate Medical Association.

More CME credits for less money (\$10.00).

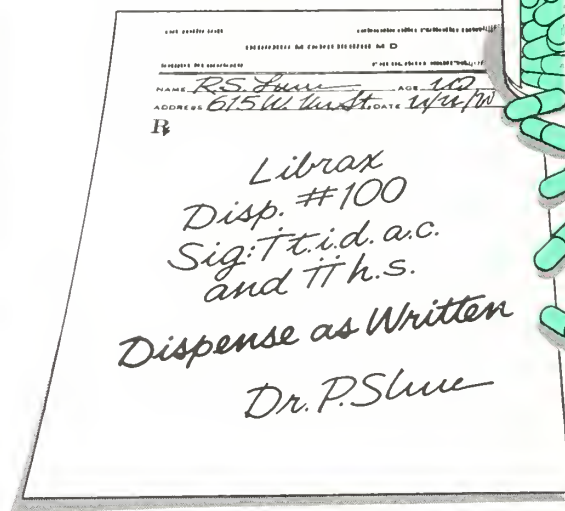
Practical questions covering the most important points from each article—not just one symposium article.

Now, more than ever, you'll want to read every issue of Postgraduate Medicine from cover to cover!



4530 W 77th Street
Minneapolis, MN 55435
(612) 835-3222

Specify Adjunctive **LIBRAX**®



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium bromide.

Please consult complete prescribing information, a summary of which follows:

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective, as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma; prostatic hypertrophy; benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur. Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazepines (see Drug Abuse and Dependence).

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuance of chlordiazepoxide; more severe seen after excessive doses over extended periods, milder after taking continuously at therapeutic levels for several months. After extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence.

P 1 0288

Roche Roche Products

Roche Products Inc.
Manati, Puerto Rico 00701

IN

To insist on the brand, be sure to sign on the "Dispense as Written" line of your prescription.

In IBS,* when it's brain versus bowel,

IT'S TIME FOR THE PEACEMAKER.

In irritable bowel syndrome,* intestinal discomfort will often erupt in tandem with anxiety—launching a cycle of brain/bowel conflict. Make peace with Librax. Because of possible CNS effects, caution patients about activities requiring complete mental alertness.

*Librax has been evaluated as possibly effective as adjunctive therapy in the treatment of peptic ulcer and IBS.

Specify Adjunctive

LIBRAX®

Each capsule contains 5 mg clordiazepoxide HCl and 2.5 mg clidinium bromide.



■ what's new

Wampole Laboratories has available three ELISA kits designed to detect different antibodies against the *B. burgdorferi* spirochete. These tests, manufactured by Zeus Scientific, are microplate-based ELISA technology and include a polyvalent assay that simultaneously detects IgG and IgM, as well as IgM- and IgG-specific assays. All kits are available for in vitro diagnostic use except the IgM-specific assay that is available for research use.

Searle, a research-based company that develops, manufactures and markets pharmaceutical products, has released the results of a nationwide study it sponsored. The study found that 98% of physicians prefer starting hypertensive patients with the lowest dose of medication as long as the dosage achieves control in most patients. Most respondents, 92%, also said they believe more medical education and/or research about optimal dosing is needed. Searle now markets Calan[®]SR (verapamil) in a new 180 mg dos-

age and recommends it once a day.

Hewlett-Packard Co. has announced new versions of its HP 43100A and HP 43110A defibrillators for use in ground-based emergency medical vehicles in the United States and Canada. Standard features of the HP defibrillators include pediatric paddles under adult paddles, touch-panel controls, on-screen messages, side-mounted paddles that are easy to remove and replace in a hurry and a 5-inch monitor for viewing patient ECG information.

The Carolon Co. has developed a specialized anti-embolism stocking to prevent pulmonary embo-

lism in many surgery patients. The Adjustable Thigh Stocking, available in 10 sizes, can be adapted to any shape or length of a patient's leg. These stockings have many advantages, including full foot, inspection toe, floating heel, specially designed knee, natural rubber thigh band and graduated compression. Each stocking is packed separately with fitting instructions, laundering information and an easy-to-use tape measure.

The Syntex Corp. has received permission from the U.S. Food and Drug Administration to market Synarel[®] (nafarelin acetate) for the management of endometriosis, including relief from pain associated with the disease and reduction in the size and number of endometrial lesions. Synarel is the first drug of its class to be approved for this indication in the United States and the first drug approved for the management of endometriosis in this country since 1976. □

News of what is new in the medical supply industry is composed of abstracts from news releases. Each item published does not necessarily constitute an endorsement of a product or recommendation for its use by INDIANA MEDICINE or by the Indiana State Medical Association.

To: Ms. Smith
From: Bob
Subject: HealthCare Center

Never mind the area nursing home list I requested. A neighbor recommended the HealthCare Center at Summer Trace Retirement Communities in Carmel. She gave me some material on the Center including several photographs she took during a visit. It's a totally private pay facility and, therefore, provides more extras in terms of dining, atmosphere, personal amenities, activities and nursing services. Of course, it may be a little more expensive. But, it's worth every penny to know that Mom will maintain the very best quality-of-life possible.

Thanks, Bob



SUMMER TRACE

Retirement Communities

HealthCare

A Monthly Publication for the Residents & Friends of the Summer Trace Retirement Communities

October 1989



COMMUNITY EVENTS

What's Cookin'? Who's Cookin'??

A cook-out was held recently in honor of the dietary staff on National Food Service Employee Day. Department heads prepared the menu of hot dogs, baked beans, potato salad and brownies. The dietary staff really enjoyed having someone serve them. The food was so good that some of the department heads were offered jobs as cooks in the kitchen!



ADMINISTRATOR

Summer Trace has many outstanding features of which we can be proud. A lot of folks have never heard about us and are interested in discovering our neat facility.

Let's all go out and really talk up Summer Trace.

Charlie Lentz
Assistant General
Manager Administrator



COMMUNITY UPDATE

Social Services

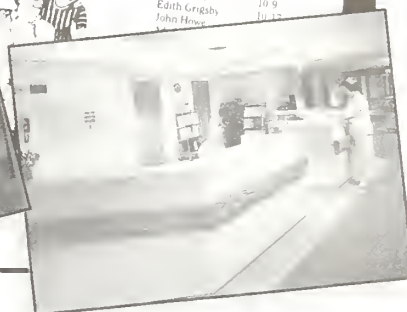
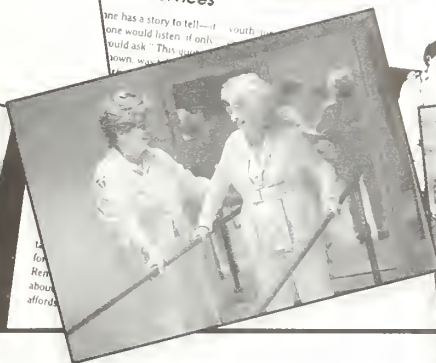
One has a story to tell—it's a story that one would listen to if only one could ask. This quick question was asked:



BIRTHDAYS

Birthday Wishes To:

Ted Steegman	10/4
Al Coulure	10/9
Edith Grigsby	10/12
John Howe	



Quality healthcare with personal services that pamper in a gracious, warm setting.

The HealthCare Center at Summer Trace Retirement Communities offers quality-of-life HealthCare. It is a totally private pay facility dedicated to pampering its guests. Open to the public, its objective is to serve people of discriminating taste in Carmel and the Northern Indianapolis area.

Quality Nursing Care, physical therapy services, and a comprehensive recreation program are offered by our extensive professional staff within a warm, family oriented atmosphere.

Impeccable Housekeeping along with personal services and amenities are combined with delicious meals from a selective menu to maximize the quality-of-life experience.

HealthCare Accommodations and Services are available on a short or long-term basis.

The HealthCare Center at Summer Trace
Quality-of-Life care for people of discriminating taste."

(317) 848-2448



SUMMER
TRACE
RETIREMENT
COMMUNITIES

12999 N. Pennsylvania St., Carmel, IN 46032

■ cme calendar

Indiana University

The Indiana University School of Medicine will sponsor the following courses:

- May 16-17- 25th Annual Indiana Multidisciplinary Child Care Conference, Hilton-on-the-Circle, Indianapolis.
- May 18 - New Horizons in the Practice of Medicine, University Place Executive Conference Center and Hotel, Indianapolis.
- May 30- June 1 - Third International Symposium on Neuronal Ceroid-Lipofuscinoses, Hilton-at-the-Airport, Indianapolis.
- May 31 - Second Annual Stroke Symposium, University Place Executive Conference Center and Hotel, Indianapolis.
- June 8 - Symposium on Cardiac Arrhythmias, University Place Executive Conference Center and Hotel, Indianapolis.
- June 8 - Indiana Ophthalmology Residents and Alumni Day, Indiana University Medical Center, Indianapolis.
- June 13 - Radiology for Primary Care Physicians, University Place Executive Conference Center and Hotel, Indianapolis.
- June 16 - James E. Bennett Surgical Society Inaugural Scientific Meeting, University Place Executive Conference Center and Hotel, Indianapolis.

- June 18-20- The Infant in the Newborn Intensive Care Unit: Overview of Medical and Surgical Problems with Nutritional Implications, University Place Executive Conference Center and Hotel, Indianapolis.

- June 20-24- Indiana Academy of Family Physicians Annual Scientific Assembly, French Lick Springs, French Lick, Ind.

- July 9-18 - 75th Annual Anatomy and Histopathology of the Head and Neck and Temporal Bone, I.U. Medical Center, Indianapolis.

For information, call Melody Dian, (317) 274-8353.

Methodist Hospital

Methodist Hospital of Indiana will sponsor the following CME courses:

- May 17-18- 25th Annual Gordon W. & Mae Batman Lecture Series, Methodist Hospital, Petticrew Auditorium, Indianapolis.
- June 8 - Geriatrics Symposium, Westin Hotel, Indianapolis.
- June 8 - Second Annual Patrick A. Dolan, M.D., Lecture Series, Methodist Hospital, Indianapolis.
- June 15-16- Laparoscopic Cholecystectomy Workshop, Methodist Hospital, Wile Hall #310, Indianapolis.
- July 1-7 - Mini-Fellowship in

- July 7-14 Management of Diabetes, Happy Hollow Camp, Nashville, Ind.

- Aug. 3-5 - Immunological Obstetrics Symposium: Oncology, Methodist Hospital of Indiana, Petticrew Auditorium, Indianapolis.

For additional program information, call Dixie Estridge, (317) 929-3733.

Purdue University

The Purdue University Calumet Gerontology Center will sponsor "The Management of Dementia: Issues in Health Care Delivery" May 15 at the Patio Restaurant in Merrillville.

The speaker will be Peter J. Whitehouse, M.D. He is director of the Alzheimer Center of the University Hospitals of Cleveland and associate professor in the Department of Neurology and director of the Division of Behavioral Neurology at Case Western Reserve.

For reservations, call Regina Zdravich, (219) 980-6560, or call Dr. Jean Prebis, (219) 989-2578.

University of Wisconsin

The University of Wisconsin School of Medicine will present the "13th Annual Sports Medicine Symposium" May 17 through 19 at the Holiday Inn-West in Madison, Wis.

All health professionals with an interest in sports medicine are invited to attend. The program will include exhibits, lectures and hands-on workshops at the University Sports Medicine and Fitness Center. For information, contact Sarah Aslakson, 2715 Marshall Ct., Madison, WI 53705, (608) 263-2856. □

"I want a malpractice carrier that knows how to fight. That's why I'm with Medical Protective."

At Medical Protective, fighting for our doctors is our number one priority. We know we're not just insuring your finances. We're protecting your professional reputation, an asset no amount of insurance can replace.

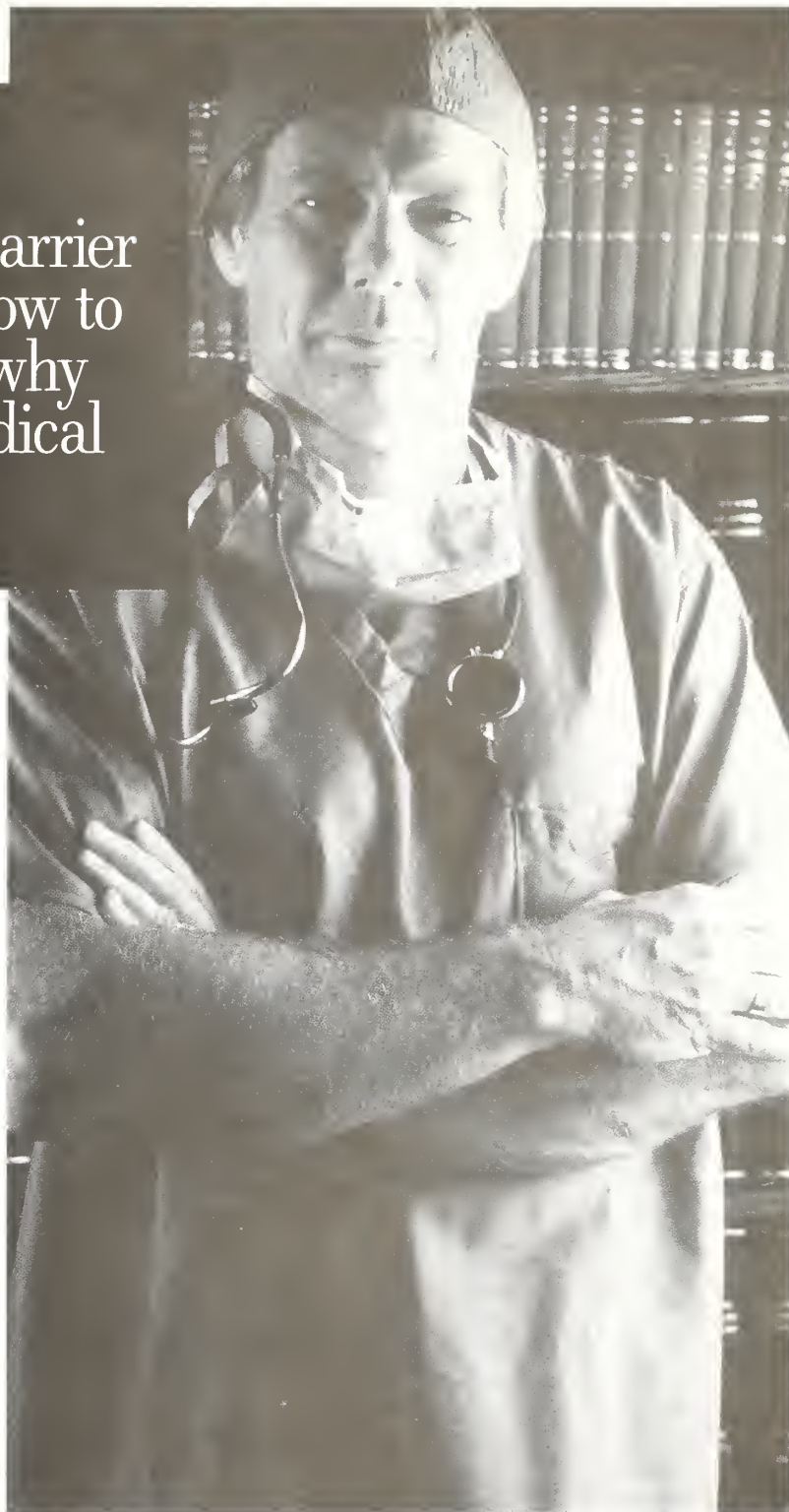
And when we go to battle, our winning record is unsurpassed. The reasons are simple.

First, no one knows more about defending doctors than we do. We invented professional liability insurance 90 years ago and have been defending doctors ever since.

Second, since our inception we have employed only the most experienced and skilled malpractice lawyers in your area. We will never waver from this commitment.

Third, commitment of this kind requires financial strength and stability. With nearly a billion dollars in assets and a continuous A.M. Best A+ (Superior) rating, we don't have to make individual case decisions based on the bottom line. We have the financial clout to do whatever it takes to serve our doctors.

If you would like this kind of aggressive defense in your corner, don't wait. Call The Medical Protective Company General Agent in your area today.



MEDICAL PROTECTIVE COMPANY

Serving Indiana Physicians Since 1908.

Robert B. Newell, J. Barton Lyon, Suite 240, 2260 Lake Avenue, P.O. Box 5174, Fort Wayne, IN 46895 (219) 422-4783
Vernon E. Hoover, H. Jere Frey, Michael W. Kinzer, 6100 North Keystone Avenue, Suite 237, P.O. Box 20576,
Indianapolis, IN 46220 (317) 255-6525

Epidermoid cyst of the spleen: A clinico-pathologic correlation

Tsau-yuen Huang, M.D.
Robert R. Wylie, M.D.
Gerald Thomas, M.D.
Jaime Cebedo, M.D.

Splenic cysts are classified into two major categories: parasitic and non-parasitic. Parasitic cysts are primarily caused by echinococcal infestation. Non-parasitic cysts can be further classified as true and false. True cysts have an epithelial or mesothelial lining and are believed to be congenital in origin. In contrast, false or pseudocysts do not have epithelial linings and are presumed to be traumatic, inflammatory or degenerative in origin, thus, often referred to as post-traumatic cysts.^{1,2}

Case report

A 39-year-old woman with a left subcostal mass was seen. She denied any weight loss, nausea, vomiting, diarrhea, constipation, urinary or respiratory symptoms except for a sensation of fullness in the left upper quadrant. She also had an umbilical hernia.

Past history was unremarkable. Complete blood count, serum chemistry, urinalysis and chest x-ray were within normal limits. A computed tomography (CT) scan of the abdomen revealed a large splenic cyst measuring approximately 14x14x13 cm with a mean

density of 1 hu. A well-defined thin rim of splenic parenchyma and a bright rim of calcification along the anteromedial aspect were present (*Figure 1*). The left kidney and the adjacent loops were displaced inferiorly. Mixed echogenesity with a slightly irregular border and a plaque-like bright echo representing calcification was noted on sonography (*Figure 2*).

Umbilical herniorrhaphy and splenectomy were performed. The patient had an uneventful postoperative course and went home five days after the operation.

The spleen measured 23x17x13 cm and weighed 2350 gm. A large fibrous plaque with focal calcification measuring 15 x 13 cm was present on the external surface of the spleen. Cut surfaces revealed a large cyst measuring 18x16x12 cm and containing ap-

Abstract

A large epidermoid cyst of the spleen in a 39-year-old woman is reported. Diagnosis and treatment are discussed.

Epidermoid cysts of the spleen occur in newborns, children and adults up to 50 years of age, with the peak incidence in the second and third decades. Abdominal mass, discomfort and non-specific gastrointestinal complaints are most common clinical presentations. Radionuclide imaging, computed tomography and sonography are the preferred preoperative noninvasive diagnostic methods.

proximately 3,000 cc of yellow-brown turbid fluid. The cyst was encapsulated by a thin rim of fibrous capsule.

Microscopically, the cyst was lined by stratified squamous epithelium and dense fibrous capsule consistent with an epidermoid

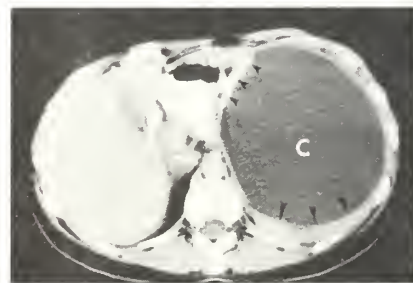


Figure 1: Computed tomography scan of the abdomen shows a large cyst (C) of the spleen with a rim of splenic parenchyma (large arrowheads) and a focal area of calcification (small arrowheads) anteromedially.

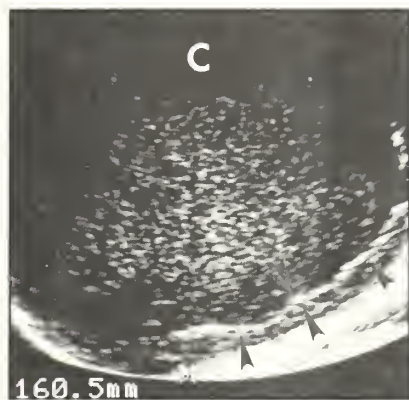


Figure 2: Sonography shows mixed echogenicity of the cyst (C) and focal bright echoes representing calcification in the capsule (arrowheads).

cyst of the spleen (Figure 3). The splenic tissue was normal.

Discussion

Epidermoid cysts of the spleen are extremely rare and constitute less than 10% of the non-parasitic cysts of the spleen.² The patients' ages range from newborns to 50 years, with an average of 16.7 years and a slight predominance in women (3:2).³ The signs and symptoms of splenic cysts include abdominal pain, palpable mass, left shoulder pain, nausea, vomiting, gastrointestinal discomfort, history of trauma or proteinuria (resolved after splenectomy). Symptoms also may be absent.⁴

Cases of reversible hypertension due to renal artery compression^{5,6} or acute abdominal pain secondary to infection or rupture of the cyst⁷ have been reported.

Radiographic findings are those of extrinsic mass effect from the spleen.⁸ Curvilinear or plaque-like calcification, such as seen in this case, may be present in up to one-fourth of the cases of pseudocysts but is less common in true

cysts.⁹ Angiography demonstrates avascular mass, displacement of adjacent structures or thickened cystic wall in the capillary phase reflecting an inflammatory process.¹⁰

Radionuclide imaging, sonography and CT have replaced angiography in the preoperative diagnosis of splenic cysts.¹¹ Tc-99m sulfur colloid liver/spleen scan shows displacement of the liver by an enlarged spleen with a focal avascular, photopenic area and a rim of splenic parenchyma. Although highly echogenic splenic cysts have been reported, low-level internal echoes are more typical and may be secondary to the presence of echogenic cholesterol crystals or other breakdown products of hematoma in the cysts.^{12,13} The borders may be smooth or trabeculated with the presence of focal bright echogenic calcification.⁴

CT findings of the splenic cysts include smooth-walled masses of near-water density with no enhancement after intravenous contrast material. Trabeculated or septated cystic wall and calcifica-

tion can be demonstrated somewhat better in CT than in sonography.¹⁴ Splenic epidermoid cysts are usually solitary, multiloculated cysts and have been reported occurring in ectopic, accessory spleen.¹⁵

Histopathologically, epidermoid cyst walls are composed of trabeculated, dense fibrous tissue lined by mesothelium or by stratified squamous epithelium with, occasionally, hemosiderin, cholesterol crystals or other degenerative tissue debris. The pathogenesis, although unknown, is proposed to be migration of the mesothelial cells lining the primitive coelomic cavity into the splenic anlage during embryogenesis with subsequent squamous metaplasia.¹⁶

Although laparoscopic puncture, percutaneous needle aspiration and partial splenectomy^{17,20} have been successfully performed, splenectomy is considered to be the treatment of choice. However, splenectomy should be performed with great care to avoid perforation of the cysts or seepage of cystic fluid into the peritoneal cavity. □

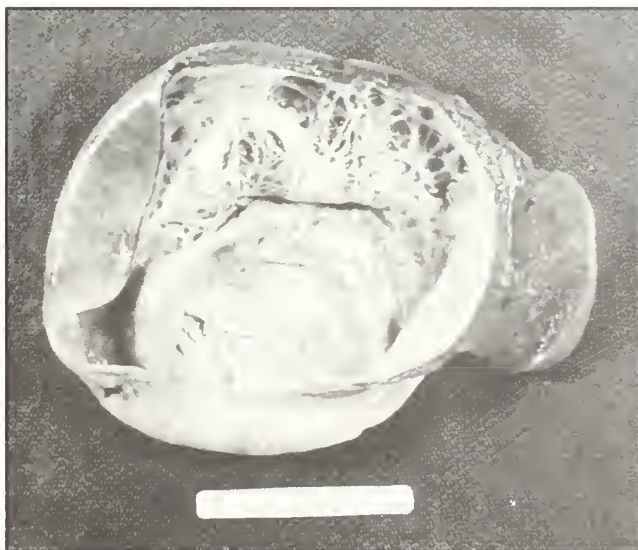


Figure 3: Cut surface of the spleen reveals a large cyst with a rim of fibrous capsule and splenic parenchyma. The inner surface is lined by thin fibrous trabeculae.

The authors are affiliated with St. Mary Medical Center in Gary and Hobart.

Correspondence: Tsau-yuen Huang, M.D., St. Mary Medical Center, 540 Tyler St., Gary, IN 46402.

The authors thank Maureen Arends for typing and editing this manuscript.

References

1. McClure RD, Altmeier WA: Cysts of the spleen. *Ann Surg*, 116:98-102, 1942.
2. Fowler RH: Collective review: Non-parasitic benign cystic tumors of the spleen. *Int Abstr Surg*, 96:209-227, 1953.
3. Shih WJ, Lloyd D, Reba RC, et al: Giant epidermoid cyst of spleen: Case report with nuclear medicine, sonographic and pathologic studies. *Florida M A*, 69:387-390, 1982.
4. Dachman AH, Ros PR, Murai PJ, et al: Non-parasitic splenic cysts: A report of 52 cases with radiologic-pathologic correlation. *AJR*, 147:537-542, 1986.
5. Qureshi MA, Hafner CD: Clinical manifestations of splenic cysts: Study of 75 cases. *Am Surg*, 31:605-608, 1965.
6. Ross ME, Ellwood R, Yang S, et al: Epidermoid splenic cysts. *Arch Surg*, 112:596-599, 1977.
7. Dibble JB, Weigent CE: Epidermoid cyst of the spleen presenting as an abdominal emergency. *JAMA*, 194:1144-1146, 1965.
8. Sirinek KR, Evans WE: Non-parasitic splenic cysts: Case report of epidermoid cyst with review of the literature. *Surgery*, 126:8-13, 1973.
9. Propper RA, Weinstein BJ, Skolnick ML, et al: Ultrasonography of hemorrhagic splenic cysts. *J Clin Ultrasound*, 7:18-20, 1979.
10. Shanser JD, Moss AA, Clark RE, et al: Angiographic evaluation of cystic lesions of the spleen. *AJR*, 119:166-174, 1973.
11. Arnold J, McGrahan JP, Stadalnik RC: Epidermoid cyst of the spleen: Value of noninvasive imaging modalities in preoperative diagnosis. *J Comput Assist Tomogr*, 6:836-838, 1982.
12. Thurber LA, Cooperberg PL, Clement JG, et al: Echogenic fluid: A pitfall in the ultrasonographic diagnosis of cystic lesions. *J Clin Ultrasound*, 7:273-278, 1979.
13. Glancy JJ: Fluid filled echogenic epidermoid cyst of the spleen. *J Clin Ultrasound*, 7:301-301, 1979.
14. Piekarski J, Federle MP, Moss AA, et al: Computed tomography of the spleen. *Radiology*, 135:683-689, 1980.
15. Davison ED, Campbell WG, Hersh T: Epidermoid splenic cyst occurring in an intrapancreatic accessory spleen. *Dig Dis Sci*, 25:964-967, 1980.
16. Case RH, Gavin DF, Doohen DJ: Metaplastic mesodermal cyst of the spleen. *Am Surg*, 37:97-102, 1971.
17. Salky B, Zimmerman M, Bauer J, et al: Splenic cyst-definitive treatment of laparoscopy. *Gastrointest Endosc*, 31:213-215, 1985.
18. DeMasi CJ, Akdarmar K, Sparks RD, et al: Splenic cyst diagnosis by percutaneous needle aspiration and splenography. *Am J Dig Dis*, 11:819-825, 1966.
19. Cameron GS, Lau YP: Epidermoid cyst of the spleen. *J Ped Surg*, 16:453-456, 1981.
20. vanSonnenberg E, Quinn SF, Wittich GR: Interventional radiology in the spleen: Feasibility and safety (abstr). *Radiology*, 157(P):112, 1985.

Join a medical team that Guards your community and state.

As a physician in the Army National Guard, you can broaden your medical experience and life experience. You'll start as an officer, enjoying all the privileges and prestige rank can bring. And you can attend professionally approved courses at no cost. Best of all, you'll be helping people in your state and local community. People who really need your special skills. For more information, contact your Army Guard recruiter.

317-232-7953, 521-4140
OR 1-800-792-3493



The Guard is America at its best.

Look for CME article in June

The Continuing Medical Education article and quiz from the Indiana University School of Medicine that normally would appear in this issue have been re-scheduled for the June issue. The CME articles and the accompanying quizzes then will resume publication on a bimonthly basis effective with the July issue of INDIANA MEDICINE. □

Three Easy Ways To Improve the Cash Flow of Your Practice

1. Eliminate the four to six-week wait for payment from insurance carriers.

We quickly process your patient charges and electronically transmit your claims within two to three working days of their receipt in our office. You usually receive payment within 14 days!

2. Streamline your office staff and paperwork.

Our billing service helps you contain overhead costs and keep your energy focused where you want it — on your practice.

3. Improve your collections rate.

Our personalized collection letters and telephone follow-up get results.

Physicians Billing Service of Indiana, Inc. is the key to quickly implementing these money-saving measures plus many more. We customize our service to meet all your specific billing and reporting needs!

Call us today for more information. We'll show you how easy it is to make your practice work for you.



Physicians Billing Service of Indiana, Inc.

5435 North Emerson Way • Suite 230 • Indianapolis, Indiana • 46226 • (317) 545-2176, ext. M2

Medical Equipment Leasing

— Find out how sensible it really is!

High technology equipment allows you to provide quality medical care right from your office. But it comes with some expense and risk. What makes diagnostic and economic sense today may not in five years.

Bell Atlantic TriCon Medical Finance can answer the difficult questions with a variety of finance options that help you acquire what you need economically. With our leasing program you can

have the use of state-of-the-art medical equipment without having to second guess the future. At the end of the lease period, you can decide if the equipment is still valuable to you. If it is, you can purchase it at a pre-determined price. If it is not, simply return it to Bell Atlantic.

We know how to take the pain out of equipment acquisition. Call for a comparative quote and special low member rates.



A member service offered through

 **Bell Atlantic**
TriCon Leasing

Medical Finance

For financial pain relief call: 1-800-322-0444

Making a rash diagnosis: Amoxicillin therapy in infectious mononucleosis

Michael E. Pauszek, M.D.
Franklin, Ind.

Infectious mononucleosis, caused by the Epstein-Barr virus, is an acute, self-limited illness characterized by fever, pharyngitis and lymphadenopathy. Clearly, it is difficult to differentiate from bacterial pharyngitis, especially group A beta-hemolytic streptococcal pharyngitis. In many series, therefore, more than one-third of patients have received antibiotic therapy either before or after the diagnosis of infectious mononucleosis is first made and confirmed.^{1,2} Antibiotic therapy, however, does not alter the course of the disease.¹

One of the less common manifestations of infectious mononucleosis is a rash, occurring with a 4.2% to 13% incidence.¹⁻³ The typical rash is morbilliform, involving primarily the trunk, with sparing of the extremities.

If antibiotic therapy is used during an acute episode of infectious mononucleosis, the incidence of rash rises. For oral penicillin or tetracycline, the rate is 14% to 23% (with a background incidence of penicillin-induced rash of 5%).² With ampicillin, the incidence rises in adults to 27.8% to 69%, with 100% incidence reported in children (with a back-

ground incidence of penicillin-induced rash of 10%).³ In contrast to the rash of infectious mononucleosis, this hypersensitivity reaction to antibiotics of infectious mononucleosis is more generalized, involving face, neck, extremities and the trunk. Palms of the hands and soles of the feet also can be involved. This rash, in conjunction with the other findings in infectious mononucleosis, has been confused with secondary syphilis.

Case report

A 32-year-old woman appeared for an internal medicine evaluation Sept. 2, 1988. Thirteen days earlier, she had been seen in an urgent care walk-in clinic complaining of a sore throat. Therapy with amoxicillin was started.

Abstract

The ampicillin analog, amoxicillin, can potentially produce the same hypersensitivity reaction as the ampicillin. The case of a patient treated with amoxicillin for a sore throat, who later presented with a rash, is reviewed. Infectious mononucleosis was considered and then supported by a positive mono spot. It would appear therefore that amoxicillin can produce the same hypersensitivity reaction as ampicillin in the setting of acute infectious mononucleosis. The clinical decision to use antibiotics in acute pharyngitis is complicated by the identical presentation of both viral and bacterial illnesses. If empiric therapy is elected, the incidence of hypersensitivity reaction is less common with penicillin or tetracycline compared to ampicillin or its analog, amoxicillin.

Seven days later she developed a rash involving primarily the extremities, including her palms. When the rash developed, she discontinued the antibiotic. Her sore throat gradually improved after 10 days. The patient noted no relationship between the antibiotic therapy and the resolution of the sore throat. She had no history of prior drug intolerance.

On examination she was obese. Her blood pressure was 140/95. Pharyngeal exam was unremarkable. No adenopathy or spleen tip was noted. A fading, macular rash was present over all four extremities and involved both the palms and the soles.

Because an infection-specific drug reaction was suspected, a mono spot was obtained. That study was positive.

Discussion

At the time of the patient's initial evaluation, the chronologic relationship between symptoms, drug therapy and then the development of the rash suggested the ampicillin-infectious mononucleosis relationship. No data regarding amoxicillin, an analog of ampicillin, and this type of reaction are available. However, a similar reaction is logical.⁴ Therefore, the spectrum of antibiotics associated with the reaction in infectious mononucleosis continues to expand.

The decision to use antibiotic therapy in pharyngitis is difficult. Findings typical of group A beta-hemolytic streptococcal pharyngitis are a fever (greater than 37.8° C or 100° F), exudative tonsillitis and anterior cervical adenitis. These findings are all similar to those of infectious mononucleosis. Even if all three findings are present, the probability of a group A beta-hemolytic streptococcal pharyngitis is still only 40% to 50%.⁵ It also is difficult to rely upon culture data. Well-performed throat cultures have a 10% false negative rate and the risk of a false positive in the 30% to 50% of the popula-

tion who are chronic pharyngeal streptococcal carriers. This chronic carrier state accounts for the incidence of false positive cultures or co-infection with streptococci reported in the past in infectious mononucleosis.

The clinician must assess the value of antibiotic therapy based upon clinical data. If there is a local outbreak of confirmed streptococcal pharyngitis, patients can be treated with any antibiotic to which the streptococcal organism is sensitive. In the absence of a clear local outbreak, the decision must then be made to obtain throat culture, begin empiric therapy pending culture or treat empirically without throat culture. In all situations, if antibiotic therapy is considered appropriate, antibiotics other than amoxicillin or ampicillin should be used because of the remaining possibility of infectious mononucleosis and the incidence of the hypersensitivity reaction.

Summary

The case of a patient treated with amoxicillin for a sore throat, who was later seen for a rash, was reviewed. An amoxicillin hy-

persensitivity reaction during acute infectious mononucleosis was considered and then supported by a positive mono spot. The clinical decision to use antibiotics is difficult in pharyngitis with fever because of the identical presentations of viral and bacterial illnesses. If empiric therapy is given, the incidence of drug-induced rashes and hypersensitivity reaction is lower with penicillin or tetracycline compared to amoxicillin and ampicillin. □

Correspondence and reprints: Michael E. Pauszek, M.D., 1101 W. Jefferson St., Franklin, IN 46131.

This article was supported in part by the Johnson County Health Foundation.

References

1. Crespín FH, Gordon RC: Infectious mononucleosis in the community hospital. *J Fam Pract*, 16:703-708, 1983.
2. Brown GL, Kenwar BS: Drug rashes in glandular fever. *Lancet*, 2:1418, 1967.
3. Patel BM: Skin rash with infectious mononucleosis and ampicillin. *Ped*, 40:910-911, 1967.
4. Personal communication.
5. Komaroff AL, Pass TM, Aronson MV: The prediction of streptococcal pharyngitis in adults. *J Gen Int Med*, 1:1-7, 1986.

Comparison of hip fracture mortality: 1946 to 1955 vs. 1982 to 1986

Clyde B. Kernek, M.D.
Joseph R. Baele, M.D.
Frank B. Throop, M.D.
Raymond O. Pierce, M.D.
Indianapolis

Hip fractures constitute a serious public health problem, and there is considerable interest in hip fracture mortality. Increased risk for mortality in hip fracture includes increased age,¹⁻⁴ male sex,¹⁻³ institutionalization,⁵⁻⁷ cerebral dysfunction,³ impaired mental ability,⁸ mental confusion,^{9,10} medical comorbidities,^{2,11,12} number of postoperative medical complications,¹⁰⁻¹² pre-fracture social function,^{13,14} and ambulatory status.^{12,15}

One of the authors (F.B.T.) did a study of hip fracture mortality at the Indianapolis General Hospital from 1946 to 1955. This initial study led to a comparative study at the same hospital, now known as Wishard Memorial Hospital, to determine the differences during a three-decade interval.

This study was conducted to learn how much change in hip fracture mortality has occurred during the past three decades, since surgery has become widely used in hip fracture management.

Methods

Mortality was studied for surgi-

cally treated hip fracture patients at Wishard Memorial Hospital. This municipal teaching hospital is involved in the training of medical students and residents and serves the indigent population of Indianapolis. The 1950 series covered hip fracture cases from 1946 through August 1955, and the 1980 series covered hip fracture cases from 1982 through 1986.

Both series were retrospective reviews of medical records. Mortality was studied for the surgical cases and was determined for death in the first four weeks of the postoperative period. The types of hip fractures were femoral neck, intertrochanteric and subtrochanteric. The factors compared included age, sex, race,

Abstract

Hip fracture mortality was compared for patients treated surgically at the same hospital from 1946 to 1955 and from 1982 to 1986. Almost all hip fractures were treated surgically (98%) in the 1980 series, compared to the 1950 series (69%). The four-week surgical mortality rate decreased significantly from 13% to 4.2%. The internal fixation implants were different except for Knowles pins. The use of prostheses had increased four-fold from 4% to 17%. Most hip fracture patients were mobilized out of bed and earlier in the 1980 series, and most patients started physical therapy earlier. Possible factors contributing to this decrease in mortality include better medical management, better implants to allow rapid mobilization of the patient, emphasis on early physical therapy and advances in anesthesia.

comorbidity, surgical procedures, postoperative complications, mobilization out of bed and physical therapy.

Results

This study compares the surgically treated hip fracture patients of the 1950 series (1946-1955) and the 1980 series (1982-1986). The 1950 series reviewed 727 hip fracture admissions of which 500 patients (69%) were treated surgically. The 1980 series reviewed 386 hip fracture admissions of which 379 patients (98%) were treated surgically. This study is of the hip fractures treated surgically.

The two series were similar for age and sex ratio (*Table*). The percentage of blacks increased

from 10% to 23%. The percentage of surgically treated patients admitted with the comorbidities of congestive heart failure and malignancy increased during the three-decade interval, while the mortality rate for these comorbidities decreased (*Table*).

The surgical procedures in the 1950 series were internal fixation, 96%, and prosthesis, 4%, and in the 1980 series, they were internal fixation, 83%, and prosthesis, 17%. Knowles pins were the only common internal fixation implants used in both series. The internal fixation implants in the 1950 series were Smith-Petersen nail, Neufeld nail and Moore blade plate. In the 1980 series, the compression hip screw was used extensively for intertrochanteric fracture. The Austin Moore prosthesis was used in both series, but the 1980 series included bipolar prostheses and one total hip arthroplasty.

General anesthesia was used in 70% of the cases in the 1950 series and 98% in the 1980 series. Spinal anesthesia was used in the rest of the cases, except for a few cases done with local anesthesia.

In the 1950 series, 88% of the patients were mobilized out of bed, and 41% were mobilized in the first week. For the 1980 series, 99% of the patients were mobilized out of bed, and 98% were mobilized in the first week. Physical therapy was started for 59% of the patients in the 1950 series, and 17% of the patients were started in the first two weeks. In the 1980 series, physical therapy was started for 88% of the patients, and 87% of the patients were started in the first two weeks.

The mortality rate for surgical cases in the 1950 series was 13% and dropped to 4.2% in the 1980

series. This is a significant decrease in the mortality rate during the three-decade interval. The mortality rates for surgical and nonsurgical cases are given in the *Table*. The mortality rate decreased during the three-decade interval for the postoperative complications of myocardial infarction, pneumonia and congestive heart failure (*Table*).

The mortality rate for race and sex is given in the *Table*. During the three-decade interval, the mortality rate for white women decreased from 14% to 3%, black women decreased from 10% to 5% and black men decreased from 52% to 7%.

Discussion

While there is much interest in

Table

Hip fracture mortality: 1950 series vs. 1980 series

<u>Series</u>	<u>1950</u>	<u>1980</u>
Average age (years)	73	71
Sex ratio (F:M)	1.8:1	1.6:1
Distribution by race and sex		
White women	60%	50%
White men	30%	27%
Black women	4%	11%
Black men	6%	12%
Comorbidity incidence and mortality		
Congestive heart failure	8%	11%
Mortality rate	50%	5%
Malignancy	1%	6%
Mortality rate	33%	21%
Surgical mortality rate	13%	4.2%*
Nonsurgical mortality rate	39%	14%
Mortality rate for postoperative complications		
Myocardial infarction	75%	0%
Pneumonia	64%	14%
Congestive heart failure	57%	7%
Mortality rate for race and sex		
White women	14%	3%
White men	5%	5%
Black women	10%	5%
Black men	52%	7%

* Chi square = 8.72, $p < 0.003$

hip fracture mortality, it is not clear how much hip fracture mortality has changed during the past decades since surgical treatment has become widely used. Grea-torex demonstrated a reduction in death rates from 1968 to 1983 for femoral neck fractures in people older than 75.¹⁶ Our study compares the four-week mortality of two series of hip fracture patients treated surgically in the same hospital during a three-decade interval (1950 series vs. 1980 series) to determine what has changed.

The two series are similar for age and sex, but the percentage of black patients increased in the 1980 series. Almost all hip fracture admissions (98%) were treated surgically in the 1980 series, compared to only 69% treated surgically in the 1950 series. This indicates that a more aggressive surgical approach is being used in the treatment of hip fractures.

Patients admitted with the comorbidities of congestive heart failure and malignancy in the 1980 series had a lower mortality rate than for the 1950 series. The apparent decrease in mortality for the comorbidity of congestive heart failure would suggest that medical management had improved greatly during the three-decade interval. Medical consultation was done routinely for patients with significant comorbidities.

Most surgical procedures in the 1950 series were internal fixations. The percentage of prostheses used in the 1980 series increased four-fold during the 1950 series. The internal fixation implants used in the 1980 series were different from the 1950 series, except for Knowles pins. The compression hip screw was used for essentially

all intertrochanteric fractures in the 1980 series. More secure internal fixation allows earlier mobilization and ambulation of the patient. General anesthesia was used extensively in the 1980 series compared to the 1950 series.

The mortality rate significantly decreased between the two series. The mortality rate of hip fractures managed by surgery decreased from 13% in the 1950 series to 4.2% in the 1980 series. The mortality rate decreased for the post-operative complications of myocardial infarction, pneumonia and congestive heart failure, but the numbers are too small to be significant. This apparent decrease in mortality suggests that these complications were better managed in the 1980 series. Medical consultation was obtained for serious postoperative complications.

During the three-decade interval, the mortality rate decreased for all patients except white men.

Compared to the 1950 series, the patients of the 1980 series essentially were all mobilized out of bed and at an earlier time. Most patients in the 1980 series started physical therapy earlier. The rapid mobilization of patients out of bed by the nursing staff and the earlier start of physical therapy may be significant factors in decreasing the mortality rate. Sexson says early physical therapy is important in reducing postoperative complications.¹² Day has

found that early operation and mobilization of hip fracture patients without anticoagulation results in a mortality from pulmonary embolism of less than 1%.¹⁷

During the three-decade interval, the mortality rate decreased for all patients except white men. The most dramatic decrease in mortality was for black men. In the 1980 series, white women had the lowest mortality rate, black men had the highest mortality rate, and white men and black women had the same mortality rate.

During the three-decade interval, the surgical management of hip fractures had a significant decrease in mortality rate from 13% to 4.2% in the four-week postoperative period. Better medical management of comorbidities and postoperative complications may be a factor in this decrease in mortality. Better implants allowed more rapid mobilization and earlier ambulation of the patients after surgery. The emphasis on early mobilization of the patient out of bed and early physical therapy for transfers and ambulation may have contributed significantly to this decrease in mortality. Advances in anesthesia have provided the ability to operate on high-risk patients.

Strategies for reducing mortality in hip fracture patients have been developed. Gallannaugh assumed that more attention on management before and after surgery might reduce the mortality rate in femoral neck fractures.¹⁸ Kenzora recommended serious medical conditions be stabilized for at least 24 hours before surgery.¹¹ Grea-torex said the declining mortality rate for femoral neck fracture was due to improved effectiveness of hospital treatment, earlier mobilization and improved

anesthesia.¹⁶ Lindholm suggested that successful management of these patients often depends on cooperation among the surgeon, the anesthesiologist, the internist and the physical therapist¹⁹ and that nurses also are part of this effort. □

The authors are with the Department of Orthopaedic Surgery, Indiana University School of Medicine, Indianapolis.

Correspondence and reprints: Clyde B. Kernek, M.D., Department of Orthopaedic Surgery, Room 1183, Riley Hospital, 702 Barnhill Drive, Indianapolis, IN 46223.

The authors thank Jean Pesut and Mary Kernek, R.N., for their assistance with this study.

References

1. Jensen JS, Tondevold E: Mortality after hip fractures. *Acta Orthop Scand*, 50:161, 1979.

2. Dahl E: Mortality and life expectancy after hip fractures. *Acta Orthop Scand*, 51:163, 1980.

3. Miller CW: Survival and ambulation following hip fracture. *J Bone Joint Surg*, 60A:930, 1978.

4. Beals RK: Survival following hip fracture - Long follow-up of 607 patients. *J Chronic Dis*, 25:235, 1972.

5. Ceder L, Ekelund L, Inerot S, et al: Rehabilitation after hip fracture in the elderly. *Acta Orthop Scand*, 50:681, 1979.

6. Niemann KMW, Mankin HJ: Fractures about the hip in an institutionalized patient population - II. Survival and ability to walk again. *J Bone Joint Surg*, 50A:1327, 1968.

7. Sherk HH, Snape WJ, Loprete FL: Internal fixation versus nontreatment of hip fractures in senile patients. *Clin Orthop*, 141:196, 1979.

8. Ions GK, Stevens J: Prediction of survival in patients with femoral neck fractures. *J Bone Joint Surg*, 69B:384, 1987.

9. Matheney II L, Scott TF, Craythorne CM, et al: Hospital mortality in 342 hip fractures. *W Va Med J*, 76:188, 1980.

10. Young TB, Gibbs ACC: Prognostic factors for the elderly with proximal femoral fracture. *Arch Emerg Med*, 1:215, 1984.

11. Kenzora JE, McCarthy RE, Lowell JD, et al: Hip fracture mortality - Relation

to age, treatment, preoperative illness, time of surgery and complications. *Clin Orthop*, 186:45, 1984.

12. Sexson SB, Lehner JT: Factors affecting hip fracture mortality. *J Orthop Trauma*, 1:298, 1987.

13. Jensen JS, Tondevold E, Sorensen PH: Social rehabilitation following hip fractures. *Acta Orthop Scand*, 50:777, 1979.

14. Cobey JC, Cobey JH, Conant L, et al: Indicators of recovery from fractures of the hip. *Clin Orthop*, 117:258, 1976.

15. Crane JG, Kernek CB: Mortality associated with hip fractures in a single geriatric hospital and residential health facility: A 10-year review. *J Am Geriatr Soc*, 31:472, 1983.

16. Greatorex IF: Femoral neck fractures - Improving efficiency in the care of elderly people. *Community Med*, 8:185, 1986.

17. Day L: Chapter 25: Pulmonary embolism and deep vein thrombosis in patients with hip fractures. In: Meyers MH, ed. *Fractures of the Hip*. Chicago, Ill: Year Book Medical Publishers, Inc; 1985:338.

18. Gallannaugh SC, Martin A, Millard PH: Regional survey of femoral neck fractures. *Br Med J*, 2:1496, 1976.

19. Lindholm TS, Puronvarsi U, Lindholm RV: Fractures of the proximal end of the femur with fatal outcome in geriatric patients. *Acta Chir Scand*, 137:778, 1971.

Look-alike and sound-alike drug names

	CEFIXIME	CEFUROXIME
Category:	Cephalosporin	Cephalosporin
Brand name:	Suprax, Lederle	Ceftin, Glaxo; Kefurox, Lilly; Zinacef, Glaxo
Generic name:	Cefixime	Cefuroxime
Dosage forms:	Powder for injection	Tablets, powder for injection
	CERADON	CORDRAN
Category:	Cephalosporin	Corticosteroid
Brand name:	Ceradon, Takeda	Cordran, Dista
Generic name:	Cefotiam	Flurandrenolide
Dosage forms:	Intravenous	Ointment, cream, lotion, tape

■ drug names

Benjamin Teplitsky, R. Ph.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions.

Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors. □

Port wine stain: A new therapeutic approach to an old birth defect

Robert M. Hurwitz, M.D.
Robert E. McCallister, M.D.
Indianapolis

A new laser to selectively eliminate port wine stains (PWS) has become available to cutaneous laser surgeons. The flashlamp, pumped, tunable, dye laser significantly lightens these congenital malformations with little discomfort to the patient and minimal texture change to the skin.

Children, especially, appear to benefit from this advanced technology because of the lack of hypertrophic scarring, which earlier was an unacceptable complication of laser surgery. Laser treatment characteristics, selective photothermolysis and clinical and histopathological findings are discussed in this article.

Materials, methods and patients

Sixty-five patients with PWS were undergoing treatment at the time of this writing. There were 26 children (under 13 years of age) and 39 adults, with ages ranging from 5 weeks to 80 years, and a mean age of 25 years. The PWS involved the face in 49, the neck in five, the chest in four, the legs in five, the arms in two and the hands and fingers in three. Their skin types varied from types

I-IV. Six had prior treatments with other modalities (e.g., argon or carbon dioxide laser).

The Candela SPTL-1 flashlamp, pumped, tunable, dye laser is factory tuned to 585 nanometers and 450 microseconds pulse-width. Rhodamine was the dye used, and the laser output was delivered through a 1-mm fiber, focused to give a 5-mm spot size using a planoconvex lens. The Scientech Model No. 365 energy meter, calibrated to within 10% accuracy, was used.

To begin, each patient received a 2 to 3 cm² test site. This was performed with a 5 mm spot size with 3-second intervals and a therapeutic energy range of 5.75 to 8.00 joules per centimeter squared. The dose used was determined by the age and skin type of the patient, as well as the location and color of the PWS. Most of the time, no anesthesia was needed, but meperidine

Abstract

A new treatment is available for port wine stains (PWS), which are congenital malformations. Both children and adults now can be treated by selective photothermolysis with a flashlamp, pumped, tunable, dye laser. Careful attention to the laser characteristics of pulse-width and dose allows significant lightening of PWS with minimal change in skin texture.

hydrochloride/promethazine hydrochloride, chloral hydrate or general anesthesia and/or intravenous sedation was used for large treatment areas involving critical areas.

Results

An immediate gray color replaced the reddish port wine stain within seconds of treatment. These areas darkened to an ashen gray color usually with a surrounding erythema. Most patients noticed an increased sensation of heat, which was relieved by applying ice packs. Sometimes slight crusting occurred, and antibiotic ointment was applied.

The gray areas generally faded in 10 to 14 days, persisted with mild erythema and lightened during the following six to eight weeks. The number of telangiectatic blood vessels decreased significantly. The percent of clearing ranged from 25% to 90% in most

cases; however, no scarring was noted (i.e., there was no evidence of macular, white, smooth, shiny skin; raised, red, hypertrophic changes; or hair loss). Macular, tan, hyperpigmentation persisted in some for two to three months before completely fading.

Retreatment of the PWS occurred at six- to 12-week intervals. Although our study is still being conducted, some PWS have completely cleared in one, two or three treatments. They varied in color from light pink to dark blue-purple. Some were speckled,

while others were homogeneous in appearance. Interestingly, the speckled lesions responded more rapidly and completely. Most were macular, but some were raised, papular and had cobblestone textures (*Figures 1A and B*).

Biopsy specimens were obtained before and after treatment in one patient. There was replacement of the large, congested, ectatic blood vessels with normal appearing blood vessels and unaltered collagen and pilosebaceous structures to a depth into the reticular dermis of about 1.80 to 2.00 mm (*Fig-*

ures 2A and B).

Discussion

PWS are considered congenital vascular malformations. They are composed of ectatic, congested, blood vessels usually within the dermis, but may involve the eye and musculo-skeletal and central nervous systems. Glaucoma, bony or soft tissue overgrowth, premature varicosities and/or arteriovenous malformations and mental retardation may occur. The reported incidence is about 0.3% of live births.¹



Figure 1A: Raised, papulonodular, dark blue-purple untreated port wine stain on the left arm of a 67-year-old man.

Figure 1B: Closer view of the port wine stain seen in Figure 1A. Note, on the right, pale, macular, pink, treated area five weeks post-pulsed dye laser. Characteristics included 7.50 J/cm², 450 microsecond pulse-width, 5 mm spot size and eight pulses.



Figure 1B.

Clinically, PWS are always present at birth and almost never spontaneously regress. They appear as pink patches and commonly involve the head and neck, but frequently the trunk and ex-

trémities are afflicted as well. In time, often by the third decade, they become reddish-blue to purple in color and papulonodular and may cause marked distortion of the affected anatomic site.

In addition, there may be bleeding and infections.

Although the physical involvement in these unfortunate individuals is readily apparent, psychological scars are almost always

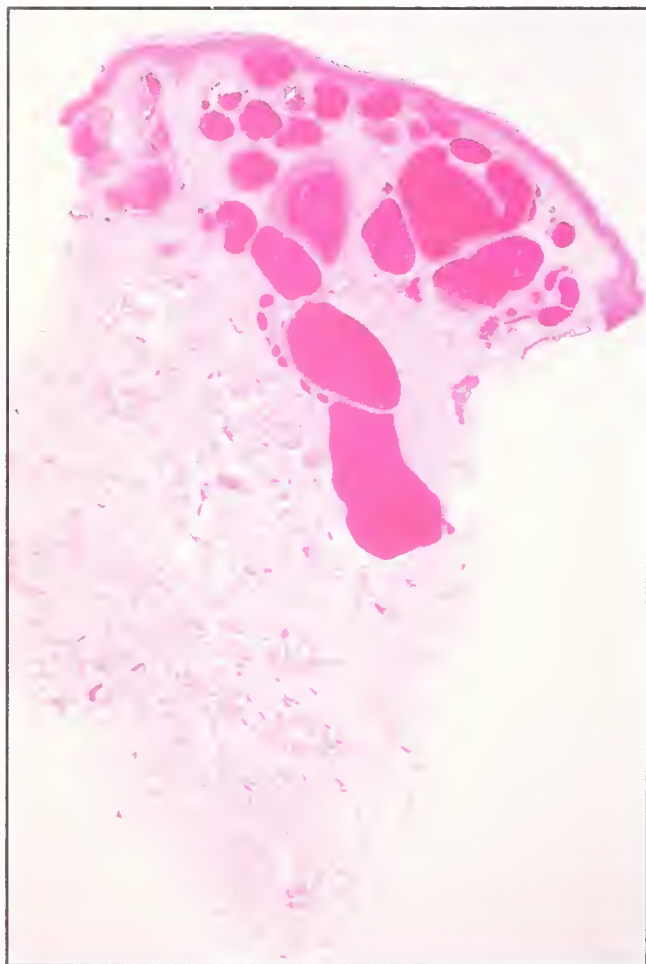


Figure 2A: Photomicrograph of untreated port wine stain seen in the left side of Figure 1B. Many dilated, ectatic, congested blood vessels are packed with red blood cells throughout the mid and upper reticular dermis, extending about 2 mm into the reticular dermis.

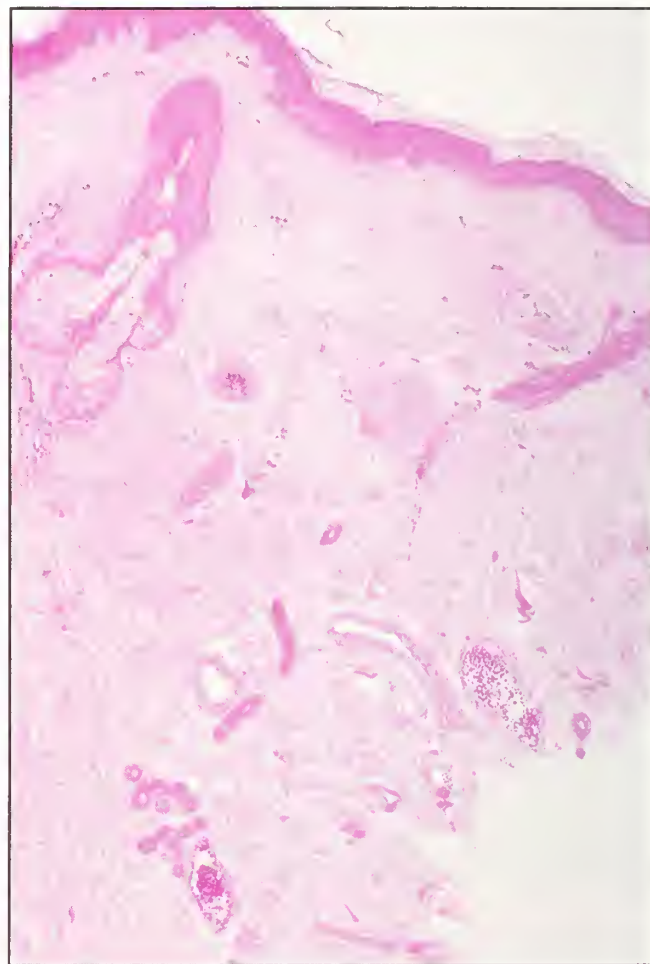


Figure 2B: Photomicrograph of 5-week-old treated port wine stain seen in Figure 1B. The epidermis, dermoepidermal junction and papillary dermis appear normal. The reticular dermis contains unaltered collagen bundles with an absence of fibrosis or scar formation. Small and normal looking blood vessels are present within the upper reticular dermis, with only a few residual mildly dilated blood vessels within the lower reticular dermis, to a depth of about 1.8 mm. An unaltered pilosebaceous unit clearly is present.

present and are considered the chief morbidity. The end result is a feeling of inadequacy and low self-esteem as a "marked" person.²

Attempts by physicians to correct these congenital malformations in the past have been disappointing. Excisional surgery, skin grafting, cryosurgery, electro-surgery and tattooing have all been tried with little success. A variety of lasers, including the ruby, carbon dioxide, argon and continuous wave dye, have had their supporters during the past 25 years. Of these, the argon laser, at 488/514 nanometers, which is blue-green in the electromagnetic spectrum, has been the most efficacious.³ Some report good to excellent results in 60% to 80% of those adults treated. However, hypertrophic scarring occurs in 5% to 10%, especially in the perioral region, side of the mandible, neck and extremities. In children, the reported incidence of hypertrophic scarring is about 40%.⁴

The concept of selective photothermolysis was first conceived by Anderson and Parrish in the early 1980s for the treatment of PWS.⁵ Laser characteristics of dose, wavelength and pulse duration were considered by them to be crucial to the successful treatment of PWS with minimal loss of normal skin texture. The wavelengths 577/585 nanometers, which is yellow light in the electromagnetic spectrum, and the pulse-width of 360-450 microseconds were chosen because they matched the absorption characteristics and the thermal relaxation time, respectively, of the targeted chromophore oxyhemoglobin. They were delivered via a flashlamp, pumped, tunable, dye laser,

which is produced by Candela Corp. Heat energy was delivered selectively to blood vessels, while sparing the epidermis, dermal collagen and adnexal structures, namely, hair follicles and eccrine glands. This resulted in agglutination of red blood cells, fibrin, platelet thrombi and degeneration of the blood vessel wall, with minimal and focal denaturation of perivessel connective tissue. After a week of laser irradiation, granulation tissue and small caliber blood vessels replaced the abnormal ectatic blood vessels.⁶

Extensive clinical and investigational studies were conducted by Tan,⁷ Garden^{8,9} and Geronemus,¹⁰ in Boston, Chicago and New York, respectively. Their clinical findings support the original scientific concept that with controlled and matched laser characteristics of dose, wavelength and pulse-width, the treatment of PWS can be successful, especially in children, with a near absence of scarring. In their studies, as in ours, repeated treatments of one or more were required to significantly lighten or totally eliminate the PWS, and in general, the lighter and pinker the port wine stain, the fewer the number of treatments needed.

Thus, the flashlamp, pulsed, tunable, dye laser offers an exciting new method of therapy that far exceeds the expectations of previous lasers or other conventional treatments of PWS and gives new hope to those patients who are afflicted with this unfortunate congenital malformation. □

The authors are with the Section of Dermatology, Department of Internal Medicine, at St. Vincent Hospital

and Health Care Center in Indianapolis.

Correspondence and reprints: Robert M. Hurwitz, M.D., St. Vincent Professional Building, 8402 Harcourt Road, Suite 830, Indianapolis, IN 46260.

References

1. Jacobs HA, Walton RG: The incidence of birthmarks in the neonate. *Pediatrics*, 58:218-222, 1976.
2. Heller A, Rafman S, Zvagulis I, Pless IB: Birth defects and psychosocial adjustment. *Am J Dis Child*, 139:257-263, 1985.
3. Noe JM, Barsky SH, Geer DE, Rosen S: Port wine stains and the response to argon laser therapy: Successful treatment and the predictive role of color, age and biopsy. *Plast Reconstr Surg*, 65:130-136, 1980.
4. Dixon JA, Huether S, Rotering RH: Hypertrophic scarring in argon laser treatment of port wine stains. *Plast Reconstr Surg*, 73:771-778, 1984.
5. Anderson RR, Parrish JA: Selective photothermolysis: Precise microsurgery by selective absorption of pulsed radiation. *Science*, 220:524-527, 1983.
6. Tan OT, Carney JM, Margolis R, et al: Histologic responses of port wine stains treated by argon, carbon dioxide and tunable dye lasers. *Arch Dermatol*, 122:1016-1022, 1986.
7. Tan OT, Sherwood K, Gilchrist BA: Treatment of children with port wine stains using the flashlamp-pulsed tunable dye laser. *N Engl J Med*, 320:416-421, 1989.
8. Garden JM, Tan OT, Parrish JA: The pulsed dye laser: Its use at 577 nm wavelength. *J Dermatol Sur Oncol*, 13:134-138, 1987.
9. Garden JM, Polla LL, Tan OT: The treatment of port wine stains by the pulsed dye laser: Analysis of pulse duration and long-term therapy. *Arch Dermatol*, 124:889-896, 1988.
10. Geronemus R: Dye lasers. In: Dover JS, Arndt KA, Geronemus R, Olbricht SO, Noe J, Stern RS, eds. *Illustrated Cutaneous Laser Surgery, A Practitioner's Guide*. Norwalk, Conn: Appleton & Lange; 1990.

de Quervain's stenosing tenosynovitis

James W. Strickland M.D.
Richard S. Idler M.D.
James C. Creighton M.D.
Indianapolis

Stenosing tenosynovitis of the first dorsal extensor compartment of the wrist is a common cause of wrist and hand pain and disability. It was first described by Fritz de Quervain, a French surgeon, in 1895.

Anatomy and pathology

The condition occurs in the first of six separate synovial lined compartments under the dorsal carpal ligament. It lies directly over the radial styloid process and contains the abductor pollicis longus and extensor pollicis brevis tendons (Figure 1). The compartment is an unyielding osteoligamentous tunnel about 1 cm in length with long proximal and distal synovial extensions. In about 30% of reported cases, the first compartment is further subdivided into two tunnels by a septum that separates the extensor pollicis brevis tendon from the abductor pollicis longus, which may have two or more slips.

Tenosynovitis may be caused by a dormant or subclinical disease, recurrent mild trauma or an acute traumatic insult to the first dorsal compartment. In particular, activities that require repetitive thumb abduction and extension,

combined with radial and ulnar wrist movements, may provoke the condition. Either one or both subdivisions of the first dorsal compartment may become stenotic and impede the normal excursion of the thumb tendons, producing local pain and tenderness.

Clinical characteristics

Stenosing tenosynovitis of the first dorsal compartment tends to occur between ages 30 and 50, with women affected 10 times more frequently than men. A common complaint is several weeks or months of pain localized to the radial side of the wrist and aggravated by movement of the thumb and wrist. An account of direct injury or chronic overuse of the wrist or hand also may help in making the diagnosis, although it is not a constant historical feature of the condition.

Palpable tenderness directly over the first dorsal compartment at the radial styloid usually is present, and a thickening of the sheath with or without a crepitus or squeaking of the involved tendons ("wet leather sign") also may be encountered. A small ganglion occasionally may arise from the compartment. The Finkelstein maneuver is probably the most pathognomonic objective test and consists of having the patient make a fist with the thumb under the fingers followed

by flexion and ulnar deviation of the wrist¹ (Figure 2). This position brings a greater volume of muscle and tendon into the stenotic and inflamed compartment and typically produces severe discomfort in affected patients.

De Quervain's stenosing tenosynovitis must be differentiated from arthritis of the base of the thumb, and the two conditions may coexist in a few individuals. The differential diagnosis also should include rheumatoid arthri-

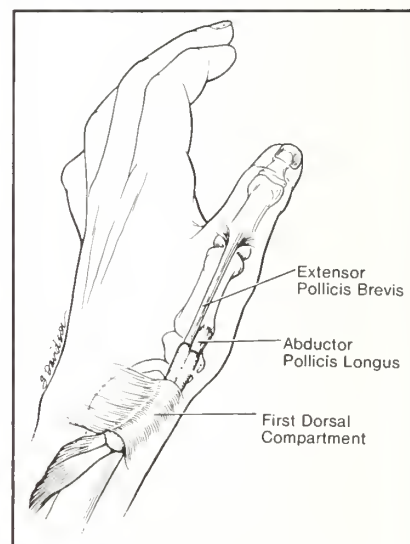


Figure 1: The anatomic arrangement of the first dorsal extensor compartment. The tunnel contains the extensor pollicis brevis tendon and one or more slips of the abductor pollicis longus tendon.

tis of the wrist, carpal fractures or instability and the inflammatory conditions of tendon, including intersection syndrome and flexor carpiradialis tunnel syndrome.

Treatment

Conservative management of this disorder includes one or more injections of a steroid preparation directly into the first dorsal compartment, splint immobilization of the wrist and thumb and the use of systemic anti-inflammatory medication. When these measures fail and the condition persists or worsens, surgical decompression of the first dorsal compartment usually is effective. □

This is another in a series of monthly articles on hand conditions from the Indiana Center for Surgery and Rehabilitation of the Hand and Upper Extremity in Indianapolis.

Correspondence and reprints:
James W. Strickland, M.D., Hand
Surgery Associates, P.O. Box 80434,
Indianapolis, IN 46280-0434.

References

1. Finkelstein, H: Stenosing tenovaginitis of the radial styloid process. *J Bone Joint Surg*, 30:509, 1930.

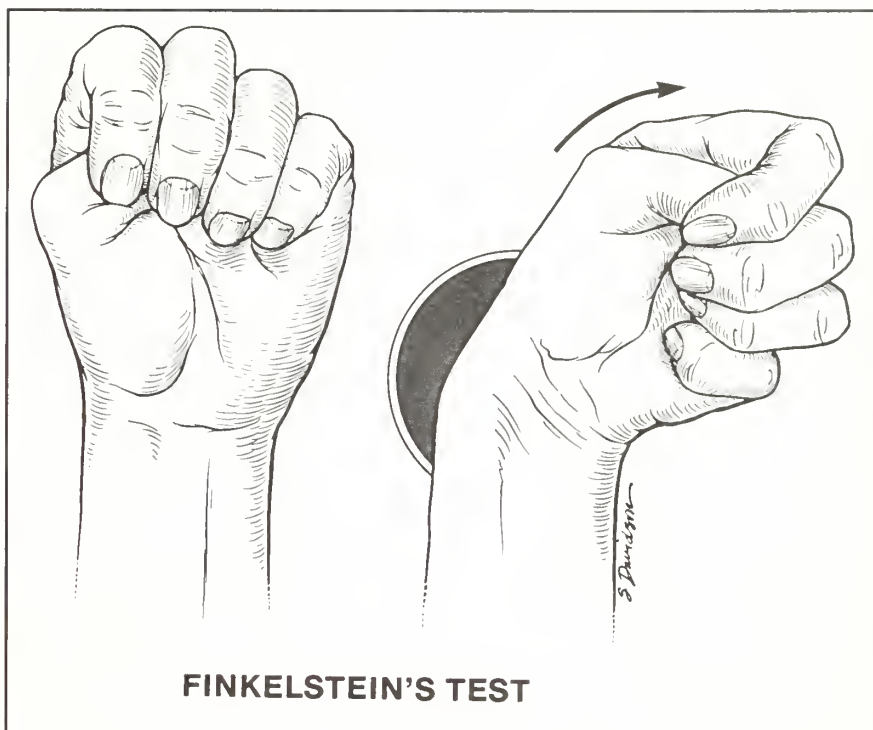


Figure 2: Finkelstein's Test. Flexion and ulnar deviation of the wrist with the fingers flexed over the thumb. Pain over the first compartment strongly suggests de Quervain's stenosing tenosynovitis.

Indiana Medicine wins first prize

INDIANA MEDICINE received first prize in the 15th annual medical journalism competition sponsored by Sandoz Pharmaceuticals.

The monthly journal of the Indiana State Medical Association was recognized for outstanding appearance and editorial qualities in the category of state medical journals. The Sandoz awards recognize the unique importance of state and local professional journals and are part of a year-round project to improve journalism techniques among small-circulation, specialized health publications.

INDIANA MEDICINE submitted the June 1989 and November 1989 issues for judging. Judges evaluated the journals on criteria such as the cover, contents page, title typography, text, captions, photography, makeup and style.

The magazine was redesigned and converted to desktop publishing effective with the March 1989 issue. The redesign included a modified cover nameplate, new and larger body type and a contemporary headline type. The desktop publishing system allows the staff to typeset all copy and lay out the pages on an Apple Macintosh computer. The changes resulted in an open, more readable, contemporary look.

One judge, Paul Fisher, journal-

ism professor at the University of Missouri, said the magazine has a "quiet, effective style" and "achieves unity" in its design. He called the covers "magnificent" and "significant in their impact" and especially liked the November 1989 cover, which called attention to a feature article, "Infant mortality: A cry for help."

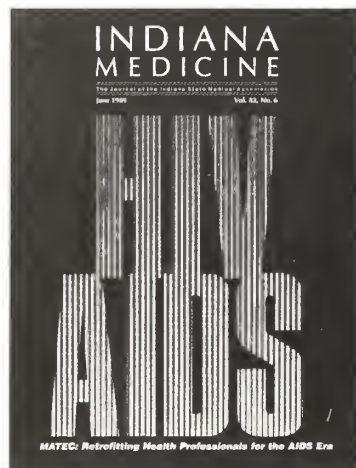
INDIANA MEDICINE previously won first place awards in the Sandoz competition in 1979 and 1976.

A Sandoz representative will present \$500 and a plaque to the INDIANA MEDICINE staff at the annual ISMA convention in Novem-

ber.

First prize winners in other categories were: *East Texas Medicine*, Tyler; *Ohio Pharmacist*, Columbus; Beth Israel Medical Center, New York, and the Medical Association of Atlanta.

State medical association publications honored included *California Physician*, special prize of \$500; *Illinois Medicine*, *New Jersey Medicine* and *Pennsylvania Medicine*, special awards of \$250; and *Iowa Medicine* and the *Journal of the Oklahoma Medical Association*, honorable mention. □



INDIANA MEDICINE submitted the June 1989 and November 1989 issues for judging in the 1990 medical journalism competition sponsored by Sandoz Pharmaceuticals.

The Face of the Enemy.



Do you feel like you're staring into the face of the enemy every time you look at a clock?

Believe it or not, *finding* time is not a mystery. It's management. And that's our business. HealthCare Managers & Consultants, Inc. (HCMC) can offer advice — and on-site solutions — for all the operating systems of your practice.

Everything from personnel management and third-party reimbursements to group practice administration. You name it, and chances are we can help with it.

We can't stop time. But we can help you *find* more of it in your practice simply by taking on your troublesome office procedures, financial headaches and business concerns. To arrange an initial consultation without obligation, call HCMC today. It's as easy as 1-800-232-4694. We *find* time.

HCMC
HealthCare Managers
& Consultants, Inc.

Indianapolis • Fort Wayne • Muncie • South Bend

Liability in the operating room

Jill L. McCrory
Indianapolis

Physicians and personnel in the operating room face stumbling blocks that are essentially the same issues facing the health profession as a whole. Questions arise concerning who is the ultimate, responsible party in an environment often containing both hospital employees and independent contractor physicians. Other problems concern anesthesia, consent, equipment use and misuse, communication and follow-up.

These issues and more plague operating room players in what, by its own right, is already a stressful scenario requiring total concentration and split-second judgment. This article will briefly address these issues to help practitioners understand the liabilities that often arise when a patient alleges malpractice in an operating room.

Hospital liability under respondeat-superior

Once, hospitals throughout the country enjoyed complete immunity from negligence, based primarily on the belief that the hospital itself was incapable of practicing medicine or treating patients. Instead, as one New York court explained, the hospital "... undertake(s) ... simply to procure (the doctors and nurses) to act upon their own responsibility ...!"

This concept eventually was recognized as inequitable to hospital staff, who carried the financial brunt of the hospital's immunity when they were sued personally for negligence, and the patients, who commonly recovered little or nothing for their injuries. To remedy this inequitable situation, the courts relied on the theory of respondeat-superior or "let the master answer," as a means for holding the hospital liable for the negligence of its

and are clearly employees acting within the scope of their duties as employees. Thus, as an example, the Supreme Court of Georgia found that the counting of sponges and instruments, which may be left in a patient during an operation, is a duty of the nurses employed by the hospital, and the negligence of the nurses will be imputed to the hospital rather than to the physician.²

In Indiana, cases that deal directly with the operating room are rare. While one 1932 decision held that a surgeon may not delegate the counting of sponges and instruments to the nurses and, thus, transfer liability to the hospital,³ the more recent case law implies otherwise. In *South Bend Osteopathic Hospital,*

Inc. v. Phillips,⁴ the court found that the administration of a hypodermic injection, although ordered by a physician, was the "normal and usual duty" of the nurse as an employee of the hospital. The hospital, therefore, was held liable for the nurse employee's negligent administration of a hypodermic injection.

Additionally, in both *Keene v. Methodist Hospital*⁵ and *Davis v. Schneider*,⁶ the hospitals were found to have "administrative and ministerial duties requisite to the operation of a hospital" for which they could be held accountable. Thus, when the nurse in *Davis*

***At one time,
hospitals throughout the country
enjoyed complete immunity from negligence,
based primarily on the belief
that the hospital itself was incapable
of practicing medicine
or treating patients.***

employees acting within the scope of their employment.

To recover under the respondeat-superior theory of liability, a plaintiff must prove two elements: 1) a master-servant relationship whereby the hospital is shown to have the right to control the employee (i.e., through wages, skills required, details of the work), and 2) the negligence was committed and occurred within the scope of the employee's employment.

In the operating room, the hospital employees generally are nurses or technicians who are intimately immersed in the surgical procedures that are occurring

improperly communicated the doctor's orders for x-rays, and the radiology administrator in *Keene* did not promptly relay reports to a patient's treating physician, the hospitals could be held liable for the negligence of their employees.

Borrowed servants

In contrast to the cases mentioned above, there are jurisdictions in which the physician can be held liable for the acts of hospital employees whom the physician is "borrowing" for his or her own treatment purposes. The physician, in these instances, is seen as an alternate "employer" of the hospital employees being "borrowed," even though the hospital still provides their wages and scheduling. The greater the degree of direct supervision and control exerted by the physician, the greater the chance that the borrowed-servant doctrine will be applied. Generally, under this approach to liability, the physician must be present at the time the negligent act is committed and, thus, ideally, in a position to prevent it.

By its definition, the borrowed-servant rule usually will not be used to hold the physician liable for the acts of another physician with whom the physician is working because most physicians are considered to be independent contractors rather than hospital employees. One possible exception to this rule is a resident who is salaried by the hospital during training. More often than not, however, resident and intern malpractice is attributed to the hospital that has contracted with the medical school to use its students and not to the physician who has "borrowed" the resident or intern.

Indiana has not directly ad-

dressed the question of the borrowed-servant doctrine in the medical environment. Based on the previous discussion concerning hospitals and their liability for the acts of their own personnel under the respondeat-superior theory, however, it is doubtful that the borrowed-servant approach will find favor in this state.

Captain of the ship doctrine

Closely related to the borrowed-servant rule, but normally confined to the operating room environment, is the idea that the operating physician is responsible for the acts of all employees in the operating room throughout an operation.

First set forth in the Pennsylvania case of *McConnell v. Williams*⁷ in 1949, the captain of the ship doctrine found liability based on the surgeon's status in the operating room and did not require showing that the surgeon had actual control of the personnel involved. The obvious problems with this doctrine, however, began to appear as surgeons subsequently were found liable in situations far removed from the operation itself (i.e., for negligent preparation of the surgical suite and equipment malfunctions).

Because of the dissatisfaction that followed such a blanket application of the captain of the ship doctrine, many courts have abolished this doctrine altogether or limited it to those times when the negligence occurs "during the course of the actual operation when the surgeon is present and ... he is not responsible for pre- or postoperative procedures which it is usual for the hospital's employees to perform in the surgeon's absence."⁸ Thus, the surgeon is not liable for the negligence of the

nurse who improperly prepares an electrical cauterizing machine before surgery, or, as in *Huber v. Protestant Deaconess Hospital Association*,⁹ an Indiana case, is not liable for the negligent administration of anesthetic that occurs before the surgeon's arrival at the operating suite.

Independent contractors

A fully qualified and licensed physician or surgeon generally is considered an independent contractor and, therefore, not under the direct control of the hospital. The hospital may provide the physician with staff privileges and allow use of personnel and equipment but usually has little or no voice in the actual treatment and professional services rendered by the doctor. Because of this arrangement, the hospital traditionally has not been implicated in the negligence committed by a physician practicing within the hospital.

Recently, however, this traditional approach to independent contractors in the hospital has undergone a rapid change, seemingly away from standard hospital immunity. The new approach focuses on what is often termed "apparent agency," which views the hospital-physician arrangement not from the perspective of the hospital and its relation to the physician, but from the standpoint of the patient who may look to and rely on the hospital's reputation in seeking treatment. In such circumstances, several courts have held that a patient should be allowed to recover from the hospital for the negligence of a physician who appeared to be the hospital's agent or employee, regardless of the actual hospital-physician relationship. These cases are limited primarily to cases involving emer-

gency department physicians and the emergency department or convenient care setting.

In Indiana, the move toward vicarious liability for doctor negligence has been much slower but recently gained momentum with the 1987 decision in *Sloan v. Metro Health Council*.¹⁰ In this case, the court held that a medical corporation (health plan) may be found liable for the negligent acts of its "employee-physician." The decision did not address the further issue of apparent agency and patient reliance in the hospital, as has occurred in other jurisdictions, leaving intact the traditional view in Indiana that a hospital is not liable for the acts of physicians using hospital services to treat patients. However, the apparent agency issue is certainly ripe and will no doubt arise in the future.

Communication in the operating room

From a prevention aspect, perhaps there is no greater shield to malpractice liability than efficient, conscientious communication among the patient, physician and hospital personnel. In the operating room, the issue is intensified because of the need for the patient's consent to the procedures to be performed, procedures most often foreign and complicated to the patient and exclusively within the control of the surgical staff.

Additionally, the operation itself may last many hours, necessitating "middle-of-procedure" shift changes for nurses and technicians that may result in confused charting and incomplete reporting of information. Thus, a constant awareness of the need for full and accurate communication is essential to smooth operation in surgical settings as well as within the hospital as a whole.

Most states, like Indiana, place the burden of informed consent on the physician involved rather than on the hospital or its employees.¹¹ It is imperative that the surgeon himself discuss the recommended operation with the patient, rather than delegate such a task to nurses. Even though the physical consent form generally is provided by the hospital and completed by hospital staff who procure the patient's signature, the burden of liability generally will not be shifted away from the physician involved. It is the surgeon, and not the hospital, who has the technical knowledge and training necessary to advise the patient of the risks of the surgery before the patient gives consent.

Charting is also a key element in assuring proper patient care and avoiding liabilities.

Between hospital personnel and departments, there is also a duty to inform, usually done by charting and oral reporting. From the surgical standpoint, the immediate duties probably lie in communicating the patient's postoperative status to the recovery room personnel with full disclosure of operative complications, pertinent underlying medical conditions and explanation of medicines and fluids currently in place. The operating room physicians, likewise, have a duty to follow the patient's condition immediately postoperatively, even though another family physician may be the primary treating doctor involved. As described in one recent Illinois

case, "a surgeon is required to continue to care for his patient until the threat of postoperative complications is over."¹²

Charting is also a key element in assuring proper patient care and avoiding liabilities. As new hospital personnel often are told in their initial orientation meetings, "If it's not in the chart, it didn't happen." While this may be exaggerating the situation, those who deal heavily in medical malpractice litigation know it is extremely difficult to substantiate compliance with medical standards when the patient's records are incomplete. At the very least, it is imperative that the names of all personnel involved in the care of a patient at any given time be entered into the patient chart so, if necessary, those people may be contacted to verify facts or occurrences. This can be especially critical in the operating room if a shift change occurs mid-procedure. Nurses and physicians should be conscious of the importance of recording a change of staff and the information exchanged.

Conclusion

The operating room is a highly technical area further complicated by the various personnel involved and the intricacies of the equipment. Because of this complexity, the potential for errors and liabilities abounds, making it essential that employees always try to prevent negligent behavior and enhance communication.

Only through a cooperative effort by physicians, nurses and hospital personnel can the patient be assured the most comprehensive care. As an added benefit, the treating staff may avoid the discouragement and unpleasantness of a lawsuit. □

The author is associated with the Indianapolis law firm of Bingham Summers Welsh & Spilman. Ms. McCrory received her associate degree in nursing from Indiana State University in 1981, her bachelor of science degree in nursing from Indiana State University in 1984 and her law degree from the Indiana University School of Law - Indianapolis in 1988.

Correspondence: Jill L. McCrory,

Bingham Summers Welsh & Spilman, 2700 Market Tower, 10 W. Market St., Indianapolis, IN 46204-2982.

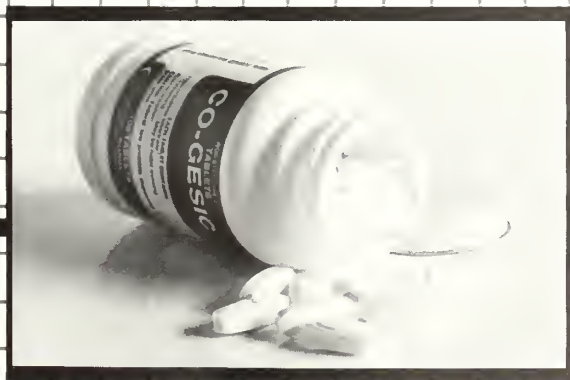
References

1. *Bing v. Thunig*, 2 N.Y. 2d 656, 666, 163 N.Y.S. 2d 3, 143 N.E. 2d 3, 8 (1957).
2. *Ross v. Chatham County Hospital Authority*, 258 Ga. 234, 367 S.E. 2d 793 (1988).
3. *Funk v. Bonham*, 204 Ind. 170, 183 N.E. 312 (1932).
4. 411 N.E. 2d 387 (Ind. App. 3 Dist. 1980).

5. 324 F. Supp. 233 (N.D. Ind. 1971).
6. 395 N.E. 2d 283 (Ind. App. 1 Dist. 1979).
7. 361 Pa. 355, 362, 65 A. 2d 243, 246 (1949).
8. *May v. Brown*, 492 P. 2d 776, 780 (Ore. 1972).
9. 133 N.E. 2d 804 (Ind. App. 1956).
10. 516 N.E. 2d 1104 (Ind. App. 1 Dist. 1987).
11. *Miller v. Griesel, et al*, 261 Ind. 604, 308 N.E. 2d 701 (1974); *Joy v. Chau*, 377 N.E. 2d 670, 677 (Ind. App. 1 Dist. 1978).
12. *Thiele v. Ortiz*, 520 N.E. 2d 881, 885 (Ill. App. 1 Dist. 1988).

Co-Gesic®

HYDROCODONE BITARTRATE* and ACETAMINOPHEN TABLETS.
5 mg and 500 mg *Warning — May be habit forming



Proven
Dependability



CENTRAL PHARMACEUTICALS, INC.

SEYMOUR, INDIANA 47274 USA

Quality Pharmaceuticals Since 1904

Indiana physicians prefer occurrence coverage

Why are some Indiana physicians considering changing their medical professional liability coverage from occurrence to claims-made?

That's a good question. The answer may have something to do with misinformation about or misunderstanding of claims-made coverage.

An occurrence policy provides coverage for alleged acts of malpractice that occur during the given policy year, regardless of when the claim is reported. A claims-made policy provides protection for alleged acts of malpractice that both occur and are reported while the coverage is in continuous force. Therefore, when purchasing a claims-made policy, the insured should be aware that if he decides to terminate coverage for any reason, it will be necessary for him to purchase an extended reporting endorsement (tail) so he will have continuous coverage for past unreported claims.

Tail coverage costs anywhere from one to three times the annual premium. A few companies offer tail coverage without a premium charge in the event of death, permanent disability and qualified retirement from the practice of medicine with the stipulation that the physician has

been insured with the company a designated number of years.

The cost of a claims-made policy can be deceiving and should be examined closely. The annual premium, as well as the tail, gradually increases with the number of years the policy is in force. An insurance company may present a claims-made policy showing the gradual increase for the next four or five years, showing it to be lower in cost than an occurrence policy; however, it cannot guarantee what the future annual premiums will be. In the long run, the insured may be paying much more than he would for an occurrence policy.

Claims-made coverage is predominant in other states where

146). This act placed a cap on the amount awarded in malpractice claims, but, just as important, set the statute of limitations at two years from the date of occurrence. For minors, the statute allows two years after age 6.

In many states, the statute of limitations for malpractice is as many as 20 years or more and often from the date of discovery. For this reason, it is difficult for professional liability insurance companies in other states to make sound actuarial decisions to offer occurrence coverage. This is not true in Indiana. Because of the relatively short statute of limitations, occurrence coverage is readily available at comparatively lower premiums.

Occurrence coverage continues to be the insurance coverage preferred by Indiana physicians. When considering the option of claims-made coverage, take a few moments to con-

sider why the malpractice climate is so favorable in Indiana and ask yourself why you should settle for claims-made when you can easily obtain occurrence coverage in a state that possesses legislation that is the envy of almost all other states in the nation.

If confronted with the possibility of transferring coverage, contact your current insurance company before making a final decision and get the facts. □

***Indiana's favorable climate
is primarily a result of carefully instituted
legislation developed during the malpractice
crisis of the mid 1970s.***

legislation favors the plaintiff. Indiana often is referred to as an "island of sanity" when comparing its malpractice climate to the rest of the United States. Indiana's favorable climate is primarily a result of carefully instituted legislation developed during the malpractice crisis of the mid 1970s.

On July 1, 1975, the state legislature passed the Indiana Patients Compensation Act (Public Law

PUT YOUR MEDICAL CAREER IN FLIGHT.

Discover the thrill of flying, the end of office overhead and the enjoyment of a general practice as an Air Force flight surgeon. Talk to an Air Force medical program manager about the tremendous benefits of being an Air Force medical officer:

- Quality lifestyle, quality practice
- 30 days vacation with pay per year
- Support of skilled professionals
- Non-contributing retirement plan if qualified

Discover how to take flight as an Air Force flight surgeon. Talk to the Air Force medical team today. Call

**USAF HEALTH
PROFESSIONS
317-848-5830
COLLECT**



Health issues adorn 'Christmas tree' bills

Michael D. Abrams
ISMA Chief Lobbyist

"Nobody is safe while the legislature is in session" – unknown

After 30 hectic, unpredictable, politically charged session days, the Indiana General Assembly adjourned Tuesday, March 13. We should have known this session was going to be unusual. Consider these elements:

1) For the first time in Indiana history, voters sent 50 members from each political party to the House of Representatives. This resulted in a cumbersome, power-sharing agreement that brought two speakers and two chairmen of each committee. In fact, 78 of the 100 House members were in a leadership position. Furthermore, special rules were adopted that, among other things, allowed a bill receiving a tie vote in committee to go to the floor.

2) The Senate Republicans had the narrowest possible majority: 26-24.

3) Both parties were positioning themselves for the 1990 elections, which are critically important because whichever party controls after these elections will be in power when the new census data are reviewed and new legislative and congressional districts are drawn. The party in power of the legislature after the 1990 elections could remain in power for at least the next six years.

4) The decision handed down by the U.S. Supreme Court in *Webster v. Reproductive Health Services* ensured that abortion would be a major issue during this short

session.

In addition, Rep. Frank Newkirk, elected from Salem as a Democrat, became a Republican near the end of the legislative session. Although this move actually gave the Republicans a 51-49 majority, the power-sharing agreement remained in effect for the rest of the session.

Several bills of interest to organized medicine were adopted during the 1990 legislative session.

It was a record-setting year in two incompatible ways. First, more bills were introduced during this short session than in any other short session since Indiana moved to annual sessions in 1972. But, when the session adjourned, fewer bills had passed than in any other short legislative session. After considering the 1,025 bills, legislators approved only 186. However, this is misleading because during the final days of the session, bills that were once dead were amended, many times in full, into other pieces of legislation. House Bill 1217, for example, contained language from more than 11 other pieces of legislation that previously had failed.

Several bills of interest to organized medicine were adopted during the 1990 legislative session. ISMA lobbyists identified nearly 200 introduced bills that required at least distant monitoring.

Oh Christmas tree

Riddle: What can a legislator do to a bill that a doctor can't do to a patient?

Answer: Bring it back from the dead.

When a bill dies somewhere in the process, a lobbyist's first thought is "where am I going to put this language?" A good lobbyist who opposes the language immediately thinks "watch for amendments to other bills that do exactly the same thing."

At the session's end, when many bills had died, legislators were pressured to add these previously dead bills to other pieces of legislation. When a bill is adorned with a large number of others, it becomes known in legislative jargon as a Christmas tree.

Health issues were the focus of two rather bright Christmas trees during the 1990 legislative session:

House Bill 1217 – HB 1217 was amended to include several provisions affecting health care. As it was sent to the governor for consideration, the bill: set regulations that must be followed by people who operate tanning facilities; requires physicians, when requested, to routinely provide patients with an itemized bill for services for which a third party is to be billed; requires the state board of health to promulgate rules as to which tests should be conducted on semen donations; requires the physical therapy committee to issue licenses to applicants under certain circumstances; and requires the state board of health to conduct a survey to assess the shortage of nurses in Indiana.

House Bill 1224 – This legislation

began in the process as a bill that would rework the formula used to finance the Fund for Children with Special Health Care Needs, formerly the Crippled Children's Fund. Some of the ornaments added by the time the bill finally passed include language to restrict the placement of vending machines that sell tobacco products, allow a birth certificate to be amended when paternity is proven by DNA analysis, add six members to the Governor's State Health Policy Commission and require the commission to study universal health insurance and other things.

Legislative leaders, lobbyists and others involved with the legislative process became slightly unsettled because of the mass confusion during conference committee time. At one point, there were six versions of certain conference reports, each containing provisions from previously dead legislation. Legislators grew frustrated because they were unsure which report they were considering. Because of the incredible conference committee rush experienced this session, the legislature may adopt new rules to bring some civility to this process.

The morgue

It is often true of legislative sessions that what did not pass is far more important than what did pass.

At the beginning of the session, many people were surprised to learn that legislators were going

to be wrestling with a universal health care bill that sought to establish a Canadian-style system of health insurance in Indiana. HB 1265 was quickly amended in the House Public Health Committee to add six new members to the Governor's State Health Policy Commission and to require the commission to study such a system. While HB 1265 did not become a law, the language from the bill was added as an ornament to HB 1217.

HB 1242 also saw early opposition from the health care community. This bill sought to criminalize negligent health care by creating a new crime, "neglect of a patient," punishable as a class B felony, or a class D felony if the neglect results in serious bodily injury or death. This bill, introduced for Attorney General Linley Pearson by Rep. Bob Alderman, died very early in the process. Threats to bring it back, however, existed throughout the session. Rep. Alderman indicated at one point that he would agree to exclude physicians from the provisions of the law.

AIDS legislation sought by the ISMA also failed to become law. Senate Bill 260 would have clarified Indiana law as to when a physician may test a patient for AIDS without the patient's informed consent. It would have allowed a patient to be tested without informed consent if the physician needed the test to diagnose or treat the patient. The bill also would have required the state

board of health to conduct case finding activities when it was notified under the "duty to warn" statute. SB 260 was an extremely controversial bill, the focus of a Statehouse demonstration organized by the Indiana Civil Liberties Union. The bill narrowly passed the Senate and stalled in the House Public Health Committee.

After bitter, emotional debate, legislators did not enact any changes to Indiana's abortion statute. Rep. Frank Newkirk and Rep. Mike Young introduced two bills that passed the House of Representatives but failed in the Senate. An attempt to revive Rep. Young's bill was made during conference committee but was unsuccessful. The upcoming elections could have a profound impact on such future bills.

It's finally over

"This has been the most, I'm not going to say disorganized, but unpredictable, frustrating and stressful session I have ever seen," said Sen. Joseph Harrison (R-Attica), majority floor leader of the Senate. Actually, these words could easily have been attributed to several people involved with the legislative process this year.

The upcoming elections likely will provide for a clear majority in the House of Representatives, restoring some order to that chamber. And, the collective frustrations of legislators, lobbyists and staffs could be the impetus for rules changes in either or both houses. □

1990 ISMA Leadership Conference

The Indiana State Medical Association held its annual leadership conference March 24 at the Holiday Inn North in Indianapolis.

The program included a day-long session on "Medicine, Media and Microphones," conducted by

Adele Lash, ISMA director of communications, and a half-day session on risk management, conducted by Barbara Killila, director of education and risk management for Physicians Insurance Company of Indiana. The day began with a general session that featured a legislative update by

Mike Abrams, chief lobbyist for the ISMA.

Also part of the agenda was a day-long seminar on radon, sponsored by the American Medical Association and the Environmental Protection Agency. It drew 107 attendees, including 47 ISMA members. □



Jerome E. Melchior, M.D., Vincennes, and William E. Cooper, M.D., Columbus, enjoy lunch in the dining room.



Dr. William C. Van Ness, M.D., Summitville, talks with Stephen R. Myron, M.D., Portland, before lunch is served.



Michael O. Mellinger, M.D., LaGrange, answers questions during a mock press conference that was part of the "Medicine, Media and Microphones" session. Participating were (backs to camera, from left) John V. Osborne, M.D., Muncie, and William C. Van Ness, M.D., Summitville, and (facing camera, from left) Fred E. Haggerty, M.D., Greencastle; Randall C. Blake, M.D., Anderson; Stephen R. Myron, M.D., Portland; and George H. Rawls, M.D., Indianapolis.



Disney Plus USAir Equals FUN!

DISNEY WORLD – FLORIDA

Grosvenor Resort in Walt Disney World Village

- Five Nights' Accommodations
- Roundtrip Air from Indianapolis
- Budget Rental Car with Unlimited Mileage
- Four Days' Admission to: Magic Kingdom, EPCOT, and/or MGM Studios

Adults	\$589
Children, 3 - 9	278
Children, 10 - 17	304

Prices are effective through December 15, 1990

Disney's Contemporary Resort

- Four Nights' Accommodations Plus Tax
- Roundtrip Air from Indianapolis
- Roundtrip Airport Transfers
- Unlimited Use of Disney Transportation System
- Unlimited Admission to Magic Kingdom, EPCOT, MGM Studios & Pleasure Island
- One "Early-Bird" Breakfast with Disney Characters

Adults	\$786
Children, 3 - 9	315
Children, 10 - 17	350

Prices are effective June 9 through August 18, 1990

DISNEYLAND – CALIFORNIA

- Three Nights' Accommodations Plus Tax at Howard Johnson, Hyatt or Sheraton Anaheim
- Roundtrip Air from Indianapolis
- National Mid-Size Car with Unlimited Mileage
- Two Days' Admission to Disneyland Park
- One "Early-Bird" Breakfast with Disney Characters

Adults & Children Over 11	\$527
Children, 3 - 11	332

Prices are effective throughout 1990

Anaheim Plaza Resort Hotel

- Four Nights' Accommodations
- Roundtrip Air from Indianapolis
- Avis Rental Car
- One Day Admission to Disneyland Park
- One Admission to Knotts Berry Farm
- One Admission to Universal Studios

Adults	\$574
---------------------	--------------

(Children Rates Upon Request)

Above rates are per person, double occupancy, with children sharing room with parents.

INTERNATIONAL TOURS TRAVEL AGENCY

**NEW
ADDRESS**

7812 E. 96th Street (Across from McDonald's)

Fishers, IN 46038

Telephones: Indianapolis – 577-7977

Indiana – 1-800-367-5410

(Endorsed by the Indiana State Medical Association)



LAKE CHARLEVOIX

DISTINCTIVE LAKEFRONT AND
PARKWAY HOME SITES



Come enjoy the relaxing lifestyle of Lake Charlevoix. Immerse yourself in the luxury of your own private 18 acre lake, nature area and unmatched landscape. Special attention to every detail makes for a uniquely designed living community in one of Indianapolis' most desirable northside locations. Sites are limited. Call or visit Lake Charlevoix today.

Lake Charlevoix will include homes featuring the city's premier builders

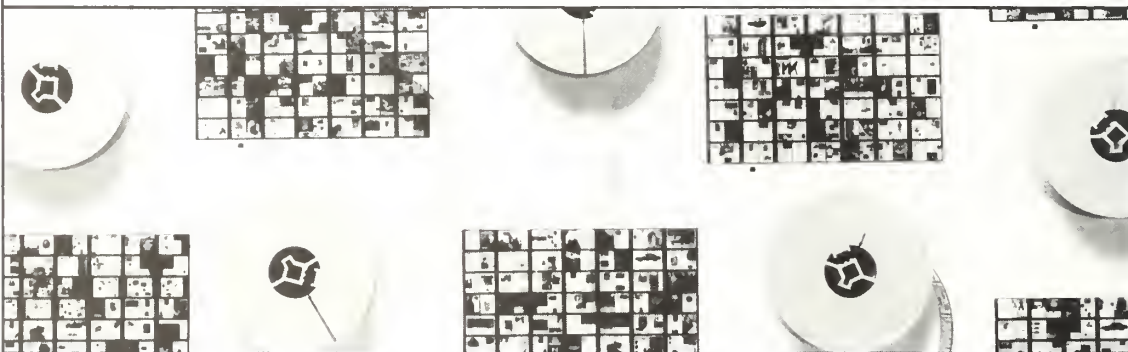
- Jim Carriger
- Mark Conreux
- Rex Weiper
- Richard Carriger
- Steve Hoss
- Weston Development, Inc.
- Mandt, Inc.
- Will Wright



Lots priced from the 50's
Telephone: 255 9832

Located at 6420 Fall Creek Road between Shadeland Ave. and Kessler Blvd
Hours: Weekdays 3 p.m. to 7 p.m. Saturday & Sunday 1 p.m. to 6 p.m.

This publication is available in microform.



UMI reproduces this publication in microform: microfiche and 16 or 35mm microfilm. For information about this publication or any of the more than 16,000 periodicals and 7,000 newspapers we offer, complete and mail this coupon to UMI, 300 North Zeeb Road, Ann Arbor, MI 48106 USA. Or call us toll-free for an immediate response: 800-521-0600. From Alaska and Michigan call collect 313-761-4700. From Canada call toll-free 800-343-5299.

U·M·I

A Bell & Howell Company
300 North Zeeb Road, Ann Arbor, MI 48106 USA
800-521-0600 toll-free
313-761-4700 collect from Alaska and Michigan
800-343-5299 toll-free from Canada

Please send me information about the titles I've listed below:

Name _____
Title _____
Company/Institution _____
Address _____
City/State/Zip _____
Phone (_____) _____

Rod Ashley ISMA Auxiliary president

Because Indiana is the first state in the history of medical auxiliaries to elect a man as its state president, many people have projected major changes in the auxiliary's operation.

What amazes me, as the first male president, is that people think it makes a great difference. I am, as all of the other presidents who have preceded me, a spouse of a physician. I have the same concerns about and goals for the auxiliary. The greatest difference between me and the others who have held this position is that because I have a career and business interests of my own, I am more aware of the value of volunteer time.

Throughout the United States, the number of volunteers is decreasing. This is because more spouses are working and unable to contribute their free time and because people feel less motivated to donate anything – money or time.

This trend is apparent in the declining membership of the auxiliary. This is distressing because the medical community needs the

auxiliary to promote positive public attitudes toward medicine; the public needs the civic work of the auxiliary in providing medical information and education as the government continually cuts its health programs; physicians need the auxiliary to be alert and responsive to the constant legislative threats to medical practices; and with the rising costs of medical education, medical students need the funds raised by the auxiliary for the AMA's Education and Research Foundation.

To revitalize the interest and involvement of medical spouses in the auxiliary, the state board is redirecting some programs and policies while still participating in the four major areas of auxiliary concern: AMA-ERF, health projects, legislation and membership.

Because time is a valuable commodity, the auxiliary is encouraging the efficient use of volunteer time (i.e., short meetings, the use of "after-hours" committee work). The board is following its advice by conducting short board meetings and expanding committee and executive meetings.

The board is promoting the concept of "personal gratification" to itself and county auxiliaries. For years, the auxiliary has



Rod Ashley

worked to help others, and although this goal is valid and important, there is also a need for gratification and improvement of the auxiliary's own members. One suggestion that helped was the introduction of "stress sharing sessions" at auxiliary meetings.

The board also is promoting the inclusion of all county presidents and county chairmen of AMA-ERF, health projects, legislation and membership as state board members. This will strengthen the communication between the state and counties.

The board has created a position of public relations chairman who will be responsible for developing programs that publicize the work of the auxiliary and physicians.

Because medicine, the role of the physician's spouse and the community are all changing, the auxiliary is being challenged to respond to the needs of the medical community. Through organized medicine and an organized auxiliary, we will face the changes in medicine successfully. □

Auxiliary to install first male president

C. Rodney Ashley, the new president of the Indiana State Medical Association Auxiliary, is the first man in the nation to serve as a state auxiliary president.

He was president of the Grant County Medical Society Auxiliary in 1986 and served on the state auxiliary board for the past five years.

Ashley currently is developing an 18th century-style sub-development in Marion and is a partner in the Homecenter, a building materials, hardware and home furnishings store in Gas City.

A native of South Carolina, he earned degrees in art history, design and fine art and previously worked as an interior designer based in Aiken, S.C. In 1979, he married Susan Rogers, a surgical pathologist, and the couple moved to her hometown of Marion. □

CARDIOLOGY – DIAGNOSTIC & INTERVENTIONAL

NASSER, SMITH AND PINKERTON CARDIOLOGY, INC.



providing

William K. Nasser, M.D.

Michael L. Smith, M.D.

Cass A. Pinkerton, M.D.

James W. VanTassel, M.D.

Dennis K. Dickos, M.D.

John D. Slack, M.D.

Charles M. Orr, M.D.

Jane Howard, M.D.

James H. Adlam, M.D.

V. Michael Bournique, M.D.

Frank J. Green, M.D.

Nancy A. Branyas, M.D.

Charles P. Taliercio, M.D.

Bruce F. Waller, M.D.

Cardiology and Cardiac Catheterization

Echocardiography

Exercise Stress Testing

Coronary Angioplasty

Nuclear Cardiology

Pacemaker Surveillance

Holter Monitoring

Percutaneous Valvuloplasty

Electrophysiologic Testing

Coronary Atherectomy

Myocardial Biopsy

Automatic Implantable Cardioverter Defibrillator

Suite 400

St. Vincent Professional Building

8402 Harcourt Road

Indianapolis, Indiana 46260

Telephones:

Office: **317-871-6666**

Toll Free:

800-732-1482 (Indiana)

800-CHD-PTCA (Indiana)

800-CAD-PTCA (National)

*PHYSICIAN
REFERRAL ONLY*

CARDIOLOGY



INDIANA HEART PHYSICIANS, INC.

Beech Grove Medical Center
112 North 17th Avenue
Suite 300
Beech Grove, IN 46107

With additional offices located in the
Indianapolis-Greenwood area and
Columbus

Indianapolis-Greenwood
(317) 783-8800
(800) 992-2081 (Indiana Only)
Columbus:
(812) 379-2020
(800) 537-9587 (Indiana Only)

H.O. Hickman, Jr., MD, FACC
Thomas M. Mueller, MD, FACC
J. Douglas Graham, MD, FACC
Kathleen H. Flohr, PhD, MD, FACC
Jeffery F. Christie, MD
David J. Hamilton, MD
Stephen H. Kliman, MD, FACC
Thomas C. Passo, MD
Kevin C. Preuss, MD, FACC
Emily A. Diltz, MD, FACC
John E. Batchelder, MD, FACC, FCCP

Cardiology and Cardiac Catheterization
Coronary Angioplasty
Balloon Valvuloplasty
Electrophysiology
Permanent Pacemaker Implantation
Nuclear Cardiology
Doppler and Echocardiography
Exercise Stress Testing
Holter Monitoring
ECG Event Monitoring
Pacemaker Surveillance
Stress Echocardiography
Noninvasive Peripheral Vascular
Evaluation



Indianapolis Cardiology Associates, Inc.

Robert E. Edmands, M.D., FACC

Samuel M. Hazlett III, M.D.

Don B. Ziperman, M.D., FACC

Physician Referral Only

- Cardiology and Cardiac Catheterization
- Doppler and Echocardiography
- Exercise Stress Testing
- Coronary Angioplasty
- Pacemaker Surveillance
- Holter Monitoring

1315 North Arlington Ave.
Suite 100
Indianapolis, IN 46219
(317) 359-5301

7250 Clearvista Dr.
Suite 227
Indianapolis, IN 46256
(317) 841-5385

CARDIOLOGY

**FORT WAYNE
CARDIOLOGY**

Basil C. Genetos, M.D., F.A.C.C.
Robert W. Godley, M.D., F.A.C.C.
Michael J. Mirro, M.D., F.A.C.C.
Kevin J. Kelly, M.D., F.A.C.C.

Fred Doloresco, M.D., F.A.C.C.
John F. Phillips, M.D., F.A.C.C.
Patrick J. Daley, M.D., F.A.C.C.
William W. Wilson, M.D.

are pleased to announce the association of

James J. Heger, M.D., F.A.C.C.

for the practice of cardiology.

Fort Wayne Cardiology, Inc.

P. O. Box 5603
1912 Carew Street
Fort Wayne, IN 46895-5603
(219) 482-4865
1-800-637-6505 (Indiana)
1-800-334-4371 (Ohio, Michigan, Kentucky, Illinois)

CARDIOLOGY

Cardiology Consultants, P.C.

is pleased to announce the association of

Peter C. Hanley, M.D., F.A.C.C.

for the practice of cardiology.

Robert E. Swint, Sr., M.D., Mark A. Jones, M.D., David A. Kaminskas, M.D.,
Gary A. Hambel, M.D., Mary H. Heintz, M.D., Ravi N. Bathina, M.D.,
Gregory C. Tomlinson, M.D., & Brian T. Lew, M.D.

3000 S. Wayne Ave.
Fort Wayne, IN 46807
(219) 744-2297

7224 Engle Rd.
Fort Wayne, IN 46804
(219) 432-2297

800 Broadway, Suite 204
Fort Wayne, IN 46802
(219) 422-2558

.....(800) 777-2297.....

ORTHOPEDIC SURGERY

FRACTURE CARE/TRAUMA
SPORTS MEDICINE
ARTHROSCOPIC SURGERY
JOINT RECONSTRUCTION
SCOLIOSIS
SPINAL SURGERY
SHOULDER SURGERY
HAND SURGERY
FOOT SURGERY
PEDIATRIC ORTHOPAEDICS
ADULT ORTHOPAEDICS



OFFICE ANSWERS DAY & NIGHT

TOLL FREE IN INDIANA (800) 223-3381

DONALD S. BLACKWELL, M.D.
F.R. BRUECKMANN, M.D., F.A.C.S.
ANTHONY R. LASICH, M.D.
WILLIAM O. IRVINE, M.D.
JOSEPH C. RANDOLPH, M.D.
DONALD E. RUSSELL, M.D.
MARK R. STEVENS, M.D.
TERRY R. TRAMMELL, M.D.
ANDREW J. VICAR, M.D.
VINCENT L. FRAGOMENI, M.D.
JOHN K. SCHNEIDER, M.D.
JOSEPH R. BAELE, M.D.
SANFORD S. KUNKEL, M.D.
DAVID A. FISHER, M.D.
HENRY G. STEIN, M.D., F.A.C.S.

Orthopaedic Surgeons

MAIN OFFICE
1801 N. Senate Blvd.
Suite 200

923-5352

Appointment Scheduling 924-2778

WESTLAKE
805 Beachway Dr.

244-9499

DANVILLE
252 Meadow Dr.

745-4525

Major Credit Cards Accepted

■physicians' directory

CRITICAL CARE

Critical Care Medicine

*Specialists
in the care of
critically ill or
injured patients*

David Powner, MD, FCCP, FCCM

Michael Buran, MD Regis Lagler, MD

Stephen Olvey, MD Daniel J. Polacek, MD

M Methodist
Hospital OF INDIANA, INC.

1701 North Senate Boulevard
Indianapolis, IN 46202

**For information
and patient referrals
(317) 929-5293**

After office hours for patient referrals call
929-8551 and page Critical Care Intensivist.

NEUROLOGY

Shirley M. Mueller, M.D.

General Neurology

Pain, Headache &

Diseases of the Autonomic Nervous System Including Dizziness

Testing Available

317-871-6000

Indianapolis

North: St. Vincent's Professional Bldg. #726

South: University Heights Professional Bldg., Suite M

PLASTIC SURGERY

GARY T. RAFLO
M.D., F.A.C.S.

OPHTHALMIC
PLASTIC AND
RECONSTRUCTIVE
SURGERY



9333 NORTH
MERIDIAN
SUITE 302
INDIANAPOLIS
IN 46260

317 573 9966
800 937 9966

ABDOMINAL SURGERY

TED W. GRISELL, M.D.

*Providing consultative services
for physicians throughout Indiana
for patients with
complex management problems*

5317 East 16th Street
Indianapolis 46218

317-359-8261
Phone answered 24 hours



AMERICAN SOCIETY OF
PLASTIC & RECONSTRUCTIVE
SURGEONS, INC.

John G. Pantzer Jr., M.D., F.A.C.S.
Diplomate, American Board
of Plastic Surgery

Bradley L. Kudlaczkyk, M.D.

1801 North Senate Blvd., Suite 735
Indianapolis, Indiana 46202
317-929-5500

CLINICAL & ANATOMIC PATHOLOGY



ANATOMIC PATHOLOGY/CYTOLOGY

Surgical Pathology
Gynecologic/Respiratory
and Fluid Cytology
Fine Needle Aspiration Biopsy
Performance and Interpretation

LABORATORY AND OFFICE
7430 North Shadeland Ave.
Indianapolis, IN 46250
(317) 841-0133

Edwin E. Pontius, M.D.
Director
Mary L. Forster, M.D.
Ted Bloch, M.D.
G.R. Schwenk Jr., M.D.
Robert J. Swedo, M.D.
Board Certified Pathologists

COURIER SERVICES FOR:
Physician Offices
Ambulatory Surgery Centers
Hospitals

Medicare/Medicaid Approved
(Assignments Accepted)
Blue Shield Preferred Provider
Accept Maxicare, PMA/PHA, etc.

OPHTHALMOLOGY

GARY T. RAFLO
M.D., F.A.C.S.

OPHTHALMIC
PLASTIC AND
RECONSTRUCTIVE
SURGERY



9333 NORTH
MERIDIAN
SUITE 302
INDIANAPOLIS
IN 46260
317 573 9966
800 937 9966

FELLOW AMERICAN COLLEGE OF SURGEONS
AMERICAN SOCIETY OF OPHTHALMIC PLASTIC
AND RECONSTRUCTIVE SURGERY

DIPLOMATE AMERICAN BOARD OF OPHTHALMOLOGY

SURGERY EYELID AND EYEBROW COSMETIC SURGERY
PTOSIS
EYELID AND ORBITAL TUMORS
LACRIMAL DRAINAGE DISORDERS
ORBITAL AND FACIAL TRAUMA
THYROID EYE DISORDERS

OTOLOGY

MERIDIAN OTOLOGY LAB

*Complete Audiometric Evaluations
*Hearing Aid Evaluations and Dispensing
*Brainstem Auditory Evoked Response
*Visual Evoked Response
*Electronystagmography
*Assistive Listening Devices—Demonstrations Available

Richard Kurtz, M.D. Jack Summerlin, M.D.
Marvin R. Kolodny, Ph.D.
Director of Audiology

3266 N. Meridian Street Indianapolis, Indiana
Suite B12 (317) 925-7077

ALCOHOLISM TREATMENT

Indiana's Leading Hospitals Specializing In The Treatment of Alcoholism and Drug Abuse.



- adolescent program
- adult program
- family program
- older adults program
- impaired professionals program
- cocaine program
- outpatient program
- disabled program
- relapse program
- co-dependency program

OUTREACH OFFICES

Bloomington • Fort Wayne • Clarksville • Merrillville • Indianapolis • Marion
South Bend • Greenwood • Kokomo • Lafayette

Michael Chadwick, M.D.
David Gregory, M.D.
Koala Center
2223 Poshard Drive
Columbus, Indiana
(812) 376-1711

John Saalwaechter, M.D.
Koala Adolescent Center
1404 S. State Avenue
Indianapolis, Indiana
(317) 783-4084

Daniel Kubley, M.D.
Koala Center
1800 N. Oak Road
Plymouth, Indiana
(219) 936-3784

Kete Cockrell, M.D.
Koala Center
1711 Lafayette Avenue
Lebanon, Indiana
(317) 482-3711

Indiana Toll-Free • 24-Hour HELPLINE • 1-800-622-4711

ALCOHOLISM TREATMENT

Eugene G. Roach, M.D.
Executive/Medical Director



Anderson Center
of Saint John's
2213 Jackson Street
Anderson, Indiana 46016

1-800-435-9143 or (317) 646-8383

- Comprehensive Alcohol and Drug Treatment
- Separate Programs for Adolescents and Adults
- Free Assessment and Intervention

ALCOHOLISM TREATMENT

Douglas Bullington, M.D.
Program Director



COUNTERPOINT CENTER
at CPC Valle Vista Hospital
898 E. Main Street
Greenwood, IN 46143
317/887-1348

- Free evaluation and intervention
- Adult & Adolescent Treatment Services
- 24 hours-a-day

■physicians' directory

INTERNAL MEDICINE

NEPHROLOGY & INTERNAL MEDICINE, INC.

Thomas Wm Arley, M.D., FACP

George W. Applegate, M.D.

Richard Bloch, M.D.

Charles B. Carter, M.D.

William H. Dick, M.D., FACP

Theodore F. Hegeman, M.D.

Douglas F. Johnstone, M.D.

Wendy L. Kindig, M.D.

LeRoy H. King, Jr., M.D., FACP

Mary A. Margolis, M.D.

Tim E. Taber, M.D.

**1801 N. Senate Blvd., Suite 355
Indianapolis 46202
Tel: 317-924-8425**

By Physician Referral

Answering Service 926-3466

Clinical Nephrology, Hemodialysis, Peritoneal Dialysis, Renal Transplantation, Metabolic Kidney Stone Disease, Hypertension, Fluid and Electrolyte Imbalance, Critical Care

HEMODIALYSIS

CHRONIC MAINTENANCE OUTPATIENT HEMODIALYSIS

DIALYSIS INSTITUTE OF ANDERSON

2629 Nichol Avenue
Anderson, Indiana 46011
317-649-0772

DIALYSIS INSTITUTE OF BEECH GROVE

3834 South Emerson Avenue
Indianapolis, Indiana 46203
317-787-3171

DIALYSIS INSTITUTE OF KOKOMO

Community Medical Arts Center
3611 South Reed Rd. (31 Bypass)
Kokomo, Indiana 46902
317-453-0606

For further information contact

NEPHROLOGY & INTERNAL MEDICINE, INC.

1801 N. Senate Blvd., Suite #355
Indianapolis, Indiana 46202
317-924-8425

Outpatient renal consultation may be
scheduled at any location.

HAND SURGERY

JOHN C. KLEIN, M.D.

Specializing in the diagnosis and treatment of hand,
wrist, and forearm disorders.

2727 N. Pennsylvania St.
Indianapolis, IN 46205

317-925-1665

Answered 24 hours

**Diplomate American Board of Orthopedic Surgery
with certificate of added qualifications in surgery of the hand.**

HEMATOLOGY - ONCOLOGY

JOHN A. CAVINS, M.D.

8220 NAAB ROAD, SUITE 105
INDIANAPOLIS, INDIANA 46260
TELEPHONE (317) 876-1036

SERVING

INDIANAPOLIS

CARMEL

NOBLESVILLE

DERMATOPATHOLOGY

DERMATOPATHOLOGY LABORATORY

Larry J. Buckel, M.D.
Robert M. Hurwitz, M.D.

Howard R. Gray, M.D.
William B. Moores, M.D.



Diplomates of the American Boards
of
Dermatology and Dermatopathology

Specializing in
Inflammatory Skin Diseases
and
Neoplasms of the Skin

9202 North Meridian Street
Suite 215

Approved for and Accept
Medicare and Medicaid
Assignment

Indianapolis, Ind. 46260
(317) 843-2204

UPS Mailers and Courier Service Available

PSYCHIATRY

Eugene G. Roach, M.D.
Executive/Medical Director



Anderson Center

of Saint John's
12111 Jackson Street
Anderson, Indiana 46016

1-800-435-9143 or (317) 646-8114

- Comprehensive Psychiatric Treatment
- Separate Programs for Adolescents, Adults and Older Adults
- Program for Dual Diagnosis

PSYCHIATRY

Davis Psychiatric Clinic, Inc.

1431 North Delaware Street
Indianapolis, Indiana 46202
317/634-9930

Larry M. Davis, M.D.
R. Peter Mohlman, M.D.
Judith L. Campbell, M.D.

Comprehensive Child, Adolescent, Adult Psychiatry
Sexual Therapy, Crisis Intervention
Alcohol and Substance Abuse

PERIPHERAL VASCULAR SURGERY



VASCULAR SURGERY, P.C.

Austin L. Gardner, M.D.
Malcolm B. Herring, M.D.
Daniel R. LeGrand, M.D.
David L. Madison, M.D.
Spencer F. Goodson, M.D.

St. Vincent Professional Building
8402 Harcourt Road
Suite 613
Indianapolis, Indiana 46260
Telephone (317) 871-6400
TOLL FREE (800) 662-5367

Carmel Medical Center
13450 North Meridian Street
Suite 160
Carmel, Indiana 46032
Telephone (317) 573-7040
TOLL FREE (800) 446-0298

Vascular
Diagnostics
Mobile
Non-invasive
Testing™



The Vascular Lab

**NONINVASIVE
VASCULAR TESTING**

The vascular lab offers a full spectrum of diagnostic vascular testing services, including the new addition of color computed sonography, supported by the entire team of:

John F. Ansbro, M.D. • Alan T. Marty, M.D. • Herbert Dan Adams, M.D.
Richard A. Murrell, M.D. • Daniel B. Daniels, M.D.

Cardiovascular Surgery Inc.

350 West Columbia
Suite 350
Evansville, Indiana 47710
812-423-2395

■physicians' directory

BREAST DISEASES

INDIANA CENTER FOR BREAST DISEASES

DAVID W. PRICE, M.D.

Practice limited to Multidisciplinary Treatment of
BREAST DISEASES

Diagnosis	(317) 872-9580
Consultation	8330 Naab Road, Suite 213
Treatment options	Indianapolis, IN 46260
Preservation surgery	
Long-term followup	Appointment by referral

ASTHMA & ALLERGY

MARK HOLBREICH, M.D.

PEDIATRIC AND ADULT
ASTHMA, ALLERGY AND IMMUNOLOGY

8803 N. Meridian St.
Suite 365
Indianapolis, Indiana
(317) 574-0230

- | | |
|-----------------|---------------------------|
| ○ Asthma | ○ Adverse Food Reactions |
| ○ Chronic Cough | ○ Drug Sensitivity |
| ○ Rhinitis | ○ Stinging Insect Allergy |

COLON & RECTAL SURGERY

KCRA



Kendrick Colon
and Rectal Associates

William M. Kendrick, M.D.
George A. Donnally, M.D.
R. James Wilson, M.D.

William E. Kelley, M.D.
Richard L. Stout, M.D.
Paula A. Hall, M.D.

William M. Sobat, M.D.

*Specialists in the Diagnosis and Treatment of Colon and Rectal Disease
General Surgery Services Available*

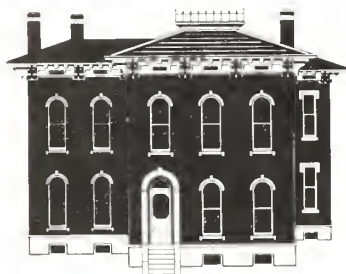
**For more information call: Kendrick Colon & Rectal Associates,
Tel: 317-831-9300 or 1-800-222-7994**

**Kendrick Memorial Hospital, Mooresville, Indiana
(JCAHO Accredited)**

Regional Offices: Muncie, Kokomo & Greensburg

ONCOLOGY — HEMATOLOGY

INDIANA ONCOLOGY-HEMATOLOGY CONSULTANTS



ADULT ONCOLOGY HEMATOLOGY

Laurence H. Bates, M.D.
William H. Bond, M.D.
William M. Dugan, M.D.
Redmond P. Hogan, M.D.
Gregory W. Smith, M.D.

PEDIATRIC ONCOLOGY HEMATOLOGY

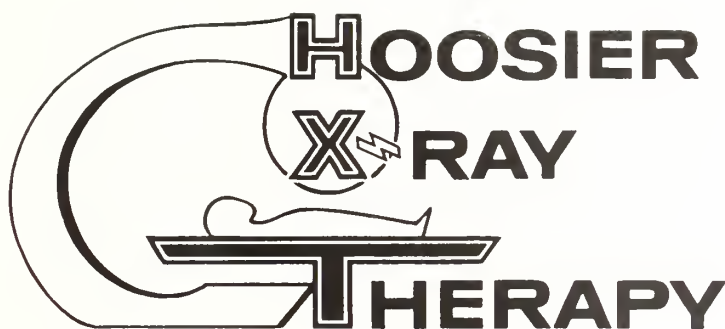
Deborah S. Provisor, M.D.

1828 N. ILLINOIS
INDIANAPOLIS
INDIANA 46202

PHONE: 317/927-5770
TOLL FREE: 1-800-ONC-HEME
1-800-662-4363

*Located in the Byram Gates Middleton House
Listed on the National Register of Historic Places*

RADIATION ONCOLOGY



Physicians:
ROGER ROBISON
DAVID BELL
TAE CHUNG

Radiation Oncology Services for Southwest Indiana

TERRE HAUTE
Regional Hospital
(812) 234-7756

VINCENNES
Good Samaritan Hospital
(812) 885-3939

ROGER ROBISON, M.D., F.A.C.P.
M.D. Anderson, 1980
Certified: Radiation
Oncology
Medical Oncology

DAVID BELL, M.D., Ph.D.
M.D. Anderson, 1981
Certified: Radiation
Oncology

TAE CHUNG, M.D.
Chicago Hines, V.A., 1976
Certified: Radiation
Oncology

RADIATION ONCOLOGY

TRI-STATE RADIATION ONCOLOGY

Evansville Cancer Center
Evansville, Indiana
(812) 474-1110



Welborn Cancer Center
Evansville, Indiana
(812) 426-8373

AL KORBA, M.D.; ALY RAZEK, M.D.
THOMAS HAYES, M.D.; AMR AREF, M.D.; SHANNON LAMB, M.D.

★ ★ ★ ★ ★

Tri-County Cancer Care Center
Jasper, Indiana
(812) 482-2212
DEV DAS SHETH, M.D.

Tri-County Cancer Care Center
Princeton, Indiana
(812) 386-6663
MOISES DOMINGO, M.D.

★ ★ ★ ★ ★

Olney Cancer Center
Olney, Illinois
(618) 392-3050
MOISES DOMINGO, M.D.

Harrisburg Oncology Associates
Harrisburg, Illinois
(618) 252-5126
MANJU GUPTA, M.D.

★ ★ ★ ★ ★

Radiation Oncology
Owensboro, Kentucky
(502) 926-7228
TRISTAN BRIONES, M.D.

Henderson Cancer Center
Henderson, Kentucky
(502) 827-0255
AMR AREF, M.D.

★ ★ ★ ★ ★

In Indiana 1-800-843-7117 • Out of Indiana 1-800-331-9294
24-hour answering service (812) 476-1367

ONCOLOGY

Indiana Regional **Cancer Center**

Science made Human.SM

Medical Oncology And Hematology

L.K. Everson, M.D.

Andrew Ross
Greenspan, M.D.

Shivaji Gunale, M.D.

Keith Logie, M.D.

M.S. Murali, M.D.

Radiation Oncology

Nini Bermudez-Webb, M.D.

Thomas O'Connor, M.D.

Palliative Care

Neil Irick, M.D.



Community Hospitals Indianapolis

(317) 353-4758

PHYSICAL MEDICINE & REHABILITATION

Physician's **B**ack **P**ain **C**linic, P.C.

A medical team approach to musculoskeletal and spinal pain disorders offering physical therapy, therapeutic exercise and manual manipulation.

DIAGNOSTIC ELECTROMYOGRAPHY

- Personal injury • Workman's compensation
- Impairment rating • Disability evaluation

350 WEST COLUMBIA • SUITE 100 • EVANSVILLE, INDIANA 47710 • 812/425-2662

————— *Board Certified* —————

Clint Mallari, M.D. • Laurance Silverman, M.D.
David Wm. Johnson, M.D.

ORTHOPAEDIC SURGERY

JAMES L. KAISER, M.D.



- ORTHOPAEDIC SURGERY
- FRACTURES
- BACK SURGERY
- FOOT SURGERY
- ARTHROSCOPIC SURGERY

Certified American Board
Of Orthopaedic Surgery

5626 East 16th Street
Indianapolis, IN 46218

(317) 352-0176

OFFICE ANSWERS DAY & NIGHT

5626 E 16
82nd & Shadeland
If No Answer Call

352-0176
352-0176
543-6089

DOCTORS:

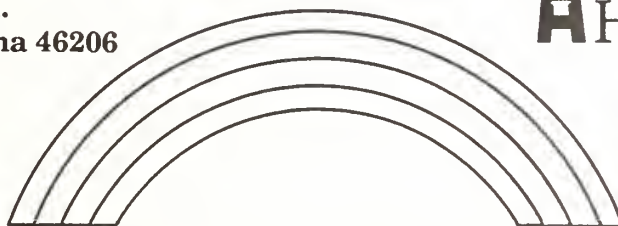
This space is available.

For rates, write or call
Indiana Medicine
3935 N. Meridian St.
Indianapolis, IN 46208
(317) 925-7545
1-800-969-7545 in Indiana only

TRANSPLANTATION

METHODIST TRANSPLANT CENTER

P.O. Box 1367
1701 N. Senate Blvd.
Indianapolis, Indiana 46206



24 - HOUR REFERRAL

(800) 772-7788

HEART TRANSPLANTATION

Surgical Director
Harold Halbrook, M.D.
Program Cardiologist:
Douglas Pitts, M.D.

LUNG TRANSPLANTATION

Surgical Director
Harold Halbrook, M.D.
Program Pulmonologist:
Michael Niemeier, M.D.

**KIDNEY TRANSPLANTATION
PANCREAS TRANSPLANTATION**

Surgical Director
Brian Haag, M.D.
Program Nephrologist:
Charles Carter, M.D.

LIVER TRANSPLANTATION

Surgical Director
Dale A. Rouch, M.D.
Program Gastroenterologists:
Peds - Vanessa Z. Ameen, M.D.
Adult - Brian G. Sperl, M.D.

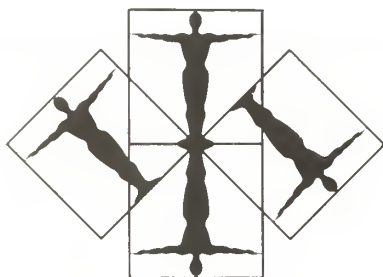
CORNEAL TRANSPLANTATION

Surgical Director
Stephen Johnson, M.D.

TISSUE/BONE BANK

Medical Director
David A. Fisher, M.D.

ORTHOPAEDICS & SPORTS MEDICINE



Hoosier Orthopaedics & Sports Medicine, P.C.

Total Joint Replacement
Athletic Injuries and Sports
Medicine
Arthroscopic Surgery
Pediatric and Adult Orthopaedics
Fracture Care/Trauma

Reconstructive Surgery of the Foot
and Ankle
Reconstructive Surgery of the
Shoulder or Knee
Back Surgery
General Orthopaedics

Robert T. Clayton, M.D.

Robert E. Cravens, M.D.

John E. Garber, M.D.

Robert M. Palmer, M.D.

Stephen B. Sexson, M.D.

Frank B. Throop, M.D.

Thomas F. Trainer, M.D.

Office Answers Day and Night

13450 North Meridian Street, Suite 355, Carmel, Indiana 46032 (317) 575-2700

8330 Naab Road, Suite 234, Indianapolis, Indiana 46260 (317) 872-3254



To Anyone Who
Has A Lung Disease
This Is A
Breathtaking
View.

Climbing even a short flight of stairs can leave a person who suffers from a chronic lung disease fighting for breath.

An estimated one out of ten Americans suffers from chronic lung disease. And the mortality rate from lung diseases is increasing faster than any of the other top ten causes of death.

Until we do something about lung diseases, no one can breathe easy.

It's a matter
of life
and breath.®



Space contributed by the publisher as a public service

Spectrum Emergency Care, Inc.

We currently have part-time, full-time and Medical Director positions available in various low to moderate volume Emergency Departments throughout Indiana. We can offer you a flexible schedule from month to month with no over-head, office expenses and no on-call duty. Physicians receive a competitive hourly rate and the best occurrence malpractice insurance in the industry. Full-time physicians (those who provide 48 hours per week) may also receive relocation assistance, CME funds, and Indiana licensing fee reimbursement. In addition, Medical Directors are offered administrative orientation and training, health, life, dental and disability insurance and a 401k retirement plan. Call us today for more information and an application.

Joan E. Logel, Physician Recruiter
1-800-325-3982, ext. 3087



SPECTRUM EMERGENCY CARE, Inc.

P.O. Box 27352, St. Louis, MO 63141

■ news briefs

District 7 to meet June 7

The date of the ISMA District 7 annual meeting has been changed to Thursday, June 7.

The evening event at The Children's Museum in Indianapolis will include dinner, a business meeting and entertainment by magician Carl Andrews Jr. Those attending also can tour the museum, located at 30th and Meridian streets.

Committee to help Alzheimer's patients

Representatives from area nursing facilities for the elderly and other aging experts are among the members of a new committee designed to help victims of Alzheimer's disease and their families.

The Alzheimer Treatment Development Committee is a 14-member statewide group established by Ball State University's Institute of Gerontology. It will help administrators of long-term care facilities develop special programs for Alzheimer's victims and will research the effectiveness of those programs.

The committee is planning a Sept. 5 conference, "Specialized Care Units for Alzheimer's Disease in Long-Term Care," at Ball State. Health care professionals throughout Indiana and caregivers of Alzheimer's victims are expected to attend the event.

For information on the conference, call the Institute of Gerontology, (317) 285-1293.

Study shows drug cuts cholesterol in eggs

Purdue University researchers have reduced the cholesterol content of eggs by feeding hens a drug commonly prescribed for humans for high serum chole-

sterol levels.

The drug, lovastatin, blocks the activity of an enzyme involved in cholesterol synthesis and is marketed by Merck under the name Mevacor.

The researchers said even if the U.S. Food and Drug Administration approved the use of lovastatin for the production of lower-cholesterol eggs, the cost of the drug would preclude its use by the egg industry. Researchers first must show that drugs such as lovastatin can reduce egg cholesterol levels without being transferred to the egg and without adversely affecting the nutrient composition of the egg or the health of the hen.

Booklet explains HIV

"About Living with HIV," a booklet that provides vital information to people who test positive for HIV, is available from the Channing L. Bete Co.

The booklet explains HIV infection and advises the reader how to establish a good relationship with a physician, how to maintain good health and how to prevent the spread of HIV. It is designed for widespread distribution in clinics, counseling centers, personal handouts and literature display racks.

To obtain a copy, write Margaret K. DeGregorio, Channing L. Bete Co., Inc., Dept. PR, 200 State Road, South Deerfield, MA 01373 or call 1-800-628-7733.

NCI seeks patients with colorectal cancer

The National Cancer Institute is seeking the referral of patients with the diagnosis of metastatic colorectal carcinoma for the evaluation of new programs for the diagnosis and treatment of this

disease. Patients with resectable or unresectable metastases are eligible for these studies.

The NCI is studying new immunotherapy treatment programs involving the administration of interleukin-2.

To refer a patient or obtain more information, contact David N. Danforth Jr., M.D., Admitting Officer, Surgery Branch, National Cancer Institute, Building 10, Room 2B38, Bethesda, MD 20892, (301) 496-1533 collect.

New video discusses universal precautions

University Health Resources, Inc. of Augusta, Ga., has released its latest videotape, "Infection Control: Beyond Universal Precautions."

The 15-minute video teaches employees to protect their patients and themselves. It discusses handwashing, safe work practices and controls, use and availability of protective barriers and universal precautions. For information, call (404) 826-8969.

Medical photos sought for ASCP competition

Entries are being accepted for the 1990 American Society of Clinical Pathologists (ASCP) Medical Photography Competition. All health care professionals interested in medical photography are invited to enter.

Up to three entries may be submitted in each of three categories: gross or macroscopic, microscopic and electron microscopic photography.

Entry forms are available by writing ASCP, 2100 W. Harrison St., Chicago, IL 60612, Attn: Medical Photography Competition, or by calling 1-800-621-4142. The entry deadline is June 1. J

Haywood W. Foy, M.D.

Dr. Foy, 90, a retired general practitioner, died Jan. 30 at his home in Garrett.

He was a 1929 graduate of Rush Medical College and a U.S. Army veteran of World War I and World War II.

Dr. Foy practiced medicine in Chicago for 20 years and in the Fort Wayne area for 40 years. He had practiced in Garrett since 1978.

Robert S. Harcourt, M.D.

Dr. Harcourt, 61, an Indianapolis general surgeon, died March 17.

He was a 1959 graduate of the University of Cincinnati School of Medicine.

From 1971 to 1982, Dr. Harcourt was president and board chairman of the Harcourt Clinic, founded by his father, Allan K. Harcourt. He was a member of the American College of Surgeons and the Industrial Medical Association and was certified by the American Board of Surgery.

Carroll C. Hyde, M.D.

Dr. Hyde, 96, a retired South Bend urologist, died March 16 in his home.

He was a 1918 graduate of the University of Michigan School of Medicine and a veteran of World War I.

Dr. Hyde was a past president of the St. Joseph County Medical Society and a member of the ISMA Fifty Year Club. He was active in the Tri-Valley Council, Boy Scouts of America, since 1923 and received the Silver Beaver Award, the highest honor given to a scouting volunteer, in 1936.

Charles E. Kenyon, M.D.

Dr. Kenyon, 91, a retired Cambridge City general practitioner, died March 24, at Golden Rule Convalescent Center in Richmond.

He was a 1929 graduate of the Indiana University School of Medicine and a veteran of World War II.

Dr. Kenyon had a practice in Cambridge City for 42 years, before retiring in 1976. He worked with the Boy Scouts and served on the Advisory Board of the Western Wayne School System.

Wilber J. Menke, M.D.

Dr. Menke, 80, a retired preventive medicine specialist, died March 19 at his home in Terre Haute.

He was a 1925 graduate of the University of Illinois College of Medicine and did research with Dr. Thomas Francis Jr. and Dr. Jonas Salk on the proof of efficacy of the influenza vaccine while serving in the U.S. Army 6th Service Command from 1941 to 1945.

Dr. Menke was a member of the ISMA Fifty Year Club and the American College of Preventive Medicine and was certified by the American Board of Preventive Medicine. He was a former associate professor at the UCLA School of Public Health and the Indiana State University School of Health and Safety.

Morris Saperstein, M.D.

Dr. Saperstein, 67, a retired psychiatrist, died March 15 at his home in Highland, Calif.

He was a 1949 graduate of the Indiana University School of Medicine and a U.S. Navy veteran.

Dr. Saperstein had a private practice in Indianapolis from 1964 to 1981 and then was a staff psychiatrist at Patton State Hospital until his retirement in 1989. He was a member of the American Psychiatric Society. □

Memorials: Indiana Medical Foundation

The Indiana Medical Foundation Inc., was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of INDIANA MEDICINE. Contributions made to the foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for federal estate and gift tax purposes.

The foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

J. Melvin Masters, M.D.
Nancy A. Roeske, M.D.
Richard Sharp

John W. Beeler, M.D.
Mildred Ramsey
Earl Mericle, M.D.

John Bush
Dallas McKelvey

Dr. Glenn J. Bingle, vice-president for medical and academic affairs at Community Hospitals Indianapolis, was elected to the board of directors for the Association for Hospital Medical Education representing Region V.

Dr. Robert B. Pauszek, an Indianapolis pediatrician, received the Distinguished Service Award from the members of the Indiana Interscholastic Athletic Administrators Association of District 3; he was honored for his volunteer work as team physician for the Lawrence Central High School football team and his support of the school's baseball teams.

Dr. George H. Rawls, ISMA president, received an Indiana Angel Award at a March 23 awards dinner patterned after a national event sponsored by Excellence in Media; he was honored for his high ethical, moral and spiritual values.

Dr. Jeffrey L. Christie, a cardiologist with Indiana Heart Physicians in Beech Grove, was elected a fellow of the American College of Cardiology.

Drs. Michael C. Dalsing and **Scott A. Shapiro**, surgeons at the Indiana University Medical Center, participated in a surgical laser course at I.U.; they also co-authored a chapter for a book, *Lasers in Head and Neck Surgery*. Dr. Shapiro wrote a chapter on laser-assisted neuroanastomosis for a book on laser welding edited by Dr. Dalsing.

Dr. Hans R. Wilbrandt of Indianapolis presented three papers at the American Society of Cataract and Refractive Surgery (ASCRS) meeting in March in Los Angeles. He also entered two videotapes in the ASCRS Film Festival; the one titled "Why Capsulorhexis ... An Analysis" won first prize in the

Physician Recognition Award recipients

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Alley, Thomas W., Indianapolis
Ansari, Mohammad A., Muncie
Argus, William A., Bluffton
Bacchus, H.M. Jr., Fort Wayne
Bockelman, Henry W., Evansville
Burrell, Michael J., Muncie
Cikrit, Dolores F., Indianapolis
Crawford, Clifford E., Terre Haute
Csicsko, John F., Fort Wayne
Cuff, Steve C., Fort Wayne
Dhar, Sisir K., Terre Haute
Dian, Donald A., Bluffton
Elleman, John H., Kokomo
Glock, Hugh E., Greencastle
Hakami, Mohamed T., Vincennes
Hegeman, Theodore F., Indianapolis
Hughes, Charles E. III, Beech Grove

Joshi, Prakash N., Marion
Lambertus, John, Terre Haute
Lee, Truman H., Indianapolis
Lentz, William C., Fort Wayne
Masbaum, Ned P., Indianapolis
Mock, Lawrence F., Bluffton
Morton, Anita L., Bluffton
Nelson, Delbert W., Berne
Perry, Guy F. Jr., Indianapolis
Riley, Henry S., Madison
Rougraff, Maurice E., Noblesville
Schafer, Scott W., Logansport
Stephens, Susan A., Carmel
Sun, Chen T., Hebron
Taube, Robert R., Terre Haute
Thurston, John B., Indianapolis
Turney, A.W., Wolcottville
Wanner, Loren J., Bluffton
Weinberg, Howard J., Munster

special interest category.

Dr. Gary T. Raflo, an Indianapolis facial plastic surgeon, spoke on blepharoplasty at the symposium on Aesthetic Surgery of the Aging Face, held in Indianapolis in March; he also participated in panel discussions about management of dry eyes syndrome, ectropion and entropion, scarring, loss of lashes, hematoma, ptosis and blindness.

Dr. Lawrence H. Einhorn of Indianapolis was one of 500 doctors nationwide who participated in a colon cancer study of nearly 1,300 patients; results of the study were published in the Feb. 8 *New England Journal of Medicine*.

Dr. George C. Weinland, former director of Quinco Consulting

Center in Columbus, retired after practicing psychiatry for 42 years.

Dr. Daniel J. Edwards of Marion and **Dr. Jeffrey F. Granger** of Logansport were inducted as fellows of the American Academy of Orthopaedic Surgeons.

Dr. Donald W. Meier, a Bluffton general surgeon, was honored at a retirement party at the Caylor-Nickel Clinic in February.

Dr. David G. Pietz of the Caylor-Nickel Clinic in Bluffton was elected governor of the American College of Gastroenterology, representing Indiana.

Dr. Mark A. Ballard, a LaPorte family practitioner, was named LaPorte County health officer.

Dr. Peter E. Gutierrez, a Crown

Point family practitioner, was elected secretary of the Lake County Medical Center Development Agency.

Dr. Morris Green, associate dean of the Indiana University School of Medicine, was named interim commissioner of the Indiana State Board of Health; he will serve until a permanent replacement is named for **Dr. Woodrow Myers**, who resigned to become New York City health commissioner.

Dr. Cory SerVaas, Indianapolis, has been appointed to the President's Council on Physical Fitness and Sports.

Dr. James A. Ray, a family practitioner, was elected chief of staff at Bloomington Hospital; other officers are **Dr. William T. Campbell**, an anesthesiologist, chief of staff-elect; **Dr. William A. Nice**, a family practitioner, secretary; and **Dr. Lawrence D. Rink**, an internist, treasurer.

Dr. Gabra S. Gachaw, an Indianapolis psychiatrist, was appointed medical director of Hendricks Community Hospital's Stress Center.

Dr. Jonathan T. Stafford, a Bloomington radiologist, has become a certified interpreter of chest x-rays for the evaluation of occupational lung disease.

Dr. John F. Williams Jr., a professor of medicine at the Indiana University School of Medicine, was named medical director of Wishard Memorial Hospital in Indianapolis.

Dr. Thomas A. Barley of North Vernon was elected a fellow of the American College of Physicians.

Drs. Roland W. Chamblee Sr. and **Milton A. Butts** were honored by the Cultural Awareness

Society of Adams High School in South Bend; they were recognized during a program that paid tribute to blacks in medicine.

Dr. Jerry L. Stucky was named medical director of Parkview Memorial Hospital in Fort Wayne.

Dr. Robert O. Zink, a retired Madison family practitioner, received the Community Service Award from the Madison Area Chamber of Commerce; the award recognizes individuals who have volunteered their services toward improvement of the community.

Dr. Ronald J. Pancner, a Fort Wayne psychiatrist, was named medical director of Charter Beacon Hospital in Fort Wayne.

Dr. Wagih A. Satar of Princeton was named chief of the medical staff at Gibson General Hospital, and **Dr. Arun C. Kumar** of Princeton was named vice-president.

Dr. Stephen J. Burns, a Michigan City orthopaedic surgeon, was elected president of the LaPorte County Unit Board of the Arthritis Association.

Dr. Kenneth E. Bobb, a Seymour family practitioner, was appointed to the Committee on Professional Liability of the American Academy of Family Physicians.

Dr. Bernard A. Bergman, a Michigan City psychiatrist, was named medical director of Charter Hospital of South Bend. □

New ISMA members

Martin K. Baker, M.D., Zionsville, radiology.

Brian A. Brown, M.D., Lafayette, anesthesiology.

Emily A. Diltz, M.D., Beech Grove, cardiovascular diseases.

John P. McGoff, M.D., Indianapolis, emergency medicine.

Colleen M. Parker, M.D., Indianapolis, dermatology.

Sara Y. Shull, M.D., Anderson, diagnostic radiology.

Maxwell Sobel, M.D., Indianapolis, psychiatry.

Tirdkiat Sombun, M.D., Wabash, obstetrics and gynecology.

Jerome D. Silver, M.D., Indianapolis, internal medicine.

Roland D. Stuckey, M.D., Fort Wayne, family practice.

M. Teresa Tallon, M.D., Fort Wayne, family practice.

Dennis L. Vargo, M.D., Indianapolis, internal medicine.

Daniel W. Voegelé Jr., M.D., Indianapolis, family practice.

James E. Wells, D.O., Fort Wayne, family practice.

Joseph F. Woschitz, M.D., Anderson, ophthalmology.

Residents

Beverly J. Ankenman, M.D., Harlan, family practice.

Elizabeth Applequest-Coe, D.O., Fort Wayne, family practice.

Alan Bercovitz, M.D., Indianapolis, family practice.

Harin J. Chhatiawala, M.D., Indianapolis, ophthalmology.

Brian T. Collins, M.D., Indianapolis, anatomic/clinical pathology.

Jack F. Freidel, M.D., Fort Wayne, family practice.

Shannon R. Kelley, M.D., Indianapolis, internal medicine.

Joseph P. McMahon, M.D., Indianapolis, internal medicine.

Wayne E. Moore, M.D., Indianapolis, general surgery.

George B. Nickles, M.D., Louisville, Ky., emergency medicine.

Thomas S. Whiteman, M.D., Upper Arlington, Ohio, otolaryngology. □

■ classifieds

MICHIGAN CITY, IND. – Seeking full-time and part-time emergency physicians for 99-bed, low-volume, hospital emergency department within one-hour drive of Chicago. Excellent compensation, paid malpractice and full benefit package to full-time staff. Opportunity for advancement. Contact Emergency Consultants, Inc., 2240 S. Airport Road, Room 20, Traverse City, MI 49684, 1-800-253-1795 or, in Michigan, 1-800-632-3496.

FOR LEASE – Professional offices 1,000 to 2,000 square feet. Near Winona Hospital. Full service building, with lab. Ample parking. For appointment to see, call (317) 632-6321.

FAMILY PRACTICE OPPORTUNITY – North Vernon, Jennings County, Ind., is seeking two or more family practice physicians for community. Ideal location to practice in community of 6,000 with service area of 25,000. Located 60 miles south of Indianapolis, 60 miles north of Louisville and 70 miles west of Cincinnati. New spacious Medical Arts Building adjacent to local 16-year-old hospital. Start-up incentives with income guarantee; recruitment campaign supported by entire medical community. Send curriculum vitae to or call Gregory Heumann, M.D., President, Jennings County Medical Society, 311 Henry St., North Vernon, IN 47265, (812) 346-7420.

FOR SALE – 84 Water's Edge. The Pointe on Lake Monroe Resort, Bloomington, Ind. Million-dollar view of Lake Monroe from all three wood decks. Four bedrooms, 3 1/2 baths, two fireplaces, wet bar, large open area kitchen, living room, screened porch, two-car garage. This condo would make a great year-round home, two- or three-family getaway or corporate retreat. Call Sam Murphy for private showing, Re/Max Town and Country, (317) 873-6350, 1-800-825-1276.

FAMILY PRACTICE – Retiring April 1, 1991. Small town, safe, good family living. Three hospitals in area. Good income. Building and equipment. Rent or buy. Excellent terms. For information and location, direct inquiries to Keith Patten, 762 Cottonwood Dr., Plainfield, IN 46168.

FOR SALE – 1950 Mulsanne Dr., Thornhill, Zionsville. This custom-built home has four bedrooms, two full baths, two half-baths, spacious master suite with sitting room, large kitchen, hardwood floors, dining room, great room with brick fireplace, den/library, bookcases, finished recreation room, half-bath in basement, screened porch, wood deck, three-car garage, work area. Gregg H. Montgomery built. Marketed by Sam Murphy, Re/Max, (317) 873-6350, 1-800-825-1276.

MILES PHARMACEUTICAL and Muncie Plasma Center are seeking an M.D. interested in a full-time position as medical director. This position includes complete benefits package, medical and dental insurance, two weeks paid vacation and much, much more. For more information, please contact: Miles Pharmaceutical-Muncie Plasma Center, 1318 S. Madison St., Muncie, IN 47302, Attn: David Tyler, Manager, (317) 288-2699.

PRIMARY CARE PHYSICIAN: Marshfield Clinic is seeking a primary care physician to join its expanding seven-member emergency medicine department. Emergency medicine, urgent and ambulatory care, plus supervision and training of ER staff contribute to a very stimulating practice environment. More than 26,000 ER visits and 13,000 ambulatory care visits annually. Specialists representing all branches of medicine and surgery provide support care and services. Marshfield Clinic is a private group practice consisting of 350 physicians and is adjacent

to St. Joseph's Hospital, a 525-bed acute care teaching facility. Send curriculum vitae to: John P. Folz, Assistant Director, Marshfield Clinic, 1000 N. Oak Ave., Marshfield, WI 54449 or call collect (715) 387-5181.

FAMILY PHYSICIAN or general internist to join an active general, industrial and institutional practice in west central Indiana. \$90,000 salary and percentage agreement, depending upon training and experience. Partnership arrangement possible after one year. Contact: Frank Swaim, M.D., Parke Clinic, 503 Anderson St., Rockville, IN 47872, (317) 659-3182.

FAMILY PRACTICE group of three seeks new partner. Well-established clinic in small farming community about 30 miles north of Indianapolis. Hospital two miles away. Guaranteed first-year salary plus good benefits. Send CV to Dr. Les Hart, 12945 N. Harrison Dr., Carmel, IN 46032 or call nights, (317) 575-8517.

EMERGENCY STAFF PHYSICIAN – Flexible scheduling in low-volume emergency department for experienced candidate. Progressive, expanding primary care hospital. Extensive pre-hospital services. CT scan, remodeled ICU, excellent staff support. Paid malpractice. Health insurance option. A.C.L.S. required. A.T.L.S. desirable. Please contact D.M. Duncan, M.D., Rush Memorial Hospital, 1300 N. Main St., Rushville, IN 46173, (317) 932-4111.

OB-GYN / PEDIATRICS / FAMILY PRACTICE / INTERNAL MEDICINE – Several attractive opportunities in INDIANA, WISCONSIN and MICHIGAN (many on lakes) for BC/BE physicians. Contact Bob Strzelczyk to discuss your practice requirements and these positions. STREL-CHECK & ASSOCIATES, INC., 12724 N. Maplecrest Lane, Mequon, WI 53092, 1-800-243-4353.

INTERNIST – GREAT OPPORTUNITY.

Very busy, young, solo internist seeking ambitious associate. Family-oriented community on Lake Winnebago with a population of 40,000. No HMOs or PPOs. A unique opportunity for someone who is genuinely interested in internal medicine and its subspecialties. An interest in critical care would be of importance. Send CV to Michael Sergi, M.D., 14 N. Main St., Fond du Lac, WI 54935.

POSITION AVAILABLE with thriving three-clinic urgency care corporation. Practice heavily emphasizing industrial, sports medicine and wellness programs. Regular work week, no call. Assistant medical director available. Salary and benefits in six figures. Contact Dr. Dean Elzey, (219) 489-2772.

ATTENTION INVESTORS: Great investment opportunity available with an established construction company building the finest single-family homes at prestigious Eagle Village addition, within walking distance of Eagle Creek Golf Course. (317) 852-6966.

PEDIATRIC PARTNER NEEDED – Community: small town atmosphere, populous drawing area. School: national honors. Cultural: University town, 50 miles from Chicago. Economics: Greatest per capita income in state. Malpractice: Lowest rates in nation. Pediatric practice: 25 years, still expanding. Office: Spacious suite in four-year-old medical building, other specialties associated, lab and x-ray. Hospital: all services, superior neonatal unit. Send CV and practice goals to: Thomas J. Covey, M.D., F.A.A.P., 2101 Comford Road, Suite 3, Valparaiso, IN 46383.

GREAT LAKES LOCALE – OB/GYN to join multi-specialty group in popular lakeside community. Competitive compensation and profes-

sional liability. Modern facility adjacent to 200-bed hospital, professional physician and support staff, state-of-the-art diagnostic services. Contact: Barbara Fahl, Administrator, LakeShore Medical Center, 1507 Wabash St., Michigan City, IN 46360, (219) 873-3030.

FOR SALE – Top quality examination table. Excellent condition. Doctor retiring. \$800 or best offer. (317) 872-3599.

BOARD-CERTIFIED family practice physician wanted for busy northside Indianapolis practice. Competitive salary, bonus. Send CV and references to: P.O. Box 80433, Box 286, Indianapolis, IN 46280.

FULL-TIME PEDIATRICIAN needed to work as an independent contractor at Grissom AFB. Outpatient clinic is open Monday-Friday from 8 a.m. to 5 p.m. Patients are scheduled in advance at 15-minute intervals. Spectrum provides you with a LPN and handles all billing. You will be reimbursed a guaranteed rate with the potential of monthly overage. Yearly CME allowances, low-cost occurrence malpractice insurance and relocation assistance. Contact Ben Hatten, Spectrum Emergency Care, P.O. Box 27352, St. Louis, MO 63141, 1-800-325-3982, ext. 3004.

EMERGENCY MEDICINE – Terre Haute, Ind. Local group seeking full-time career-oriented emergency physician for position in low- and moderate-volume departments. Flexible scheduling, very competitive compensation package. Send CV or contact William R. Grannen, Priority Health Care, P.C., 7179 Lamplite Ct., Cincinnati, OH 45244, (513) 231-0922.

EMERGENCY PHYSICIANS WANTED – For Fayette Memorial Hospital in Connersville, Ind. Will consider all

physicians with emergency medicine experience. 15,000 visits/year. Fee-for-service group does its own billing. Hourly compensation based on training, experience and qualifications. Excellent fringe benefit package includes, life, health, disability and malpractice insurance plus CME allowance, ACEP and ISMA dues, pension plan and potential bonus. Contact: Michael D. Bishop, M.D., FACEP, Emergency Care Physicians, 640 S. Walker St., Suite A, Bloomington, IN 47403, (812) 333-2731.

FAMILY PRACTICE – Hospital-sponsored clinic opportunity. Dynamic, growth-oriented hospital in beautiful north central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435, (612) 835-5123.

CENTRAL INDIANA – Physician-owned emergency group accepting applications for full-time, career-oriented emergency physicians. Flexible work schedules and excellent benefit package. Part-time and directorship positions also available. Send CV or contact Sherry Bussel, Midwest Medical Management, Inc., 528 Turtle Creek, North Dr., Suite F-4, Indianapolis, IN 46227, (317) 783-7474. □



A Prescription More and More Physicians Are Ordering for Themselves.

Last year, an estimated 40,000 U.S. physicians were married to other physicians. The AMA realizes that there are unique challenges that come with having a dual-doctor family. That's why Indiana was chosen to participate in a two-year pilot study that offers a **25% dues reduction** when both physician members of a medical family join the AMA. Contact the Indiana State Medical Association at **317-925-7545** for information about this opportunity to cash in on the savings that could be waiting for you if you qualify.



American Medical Association

Are you reading this ad?

So are thousands of others. Reach more than 6,000 physicians with a display ad in *INDIANA MEDICINE*, the journal of the Indiana State Medical Association.

For additional information, contact
INDIANA MEDICINE, 3935 N. Meridian St.,
Indianapolis, IN 46208, (317) 925-7545.

Advertising index

American Lung Association	375
American Medical Association	382
Bell Atlantic TriCon Leasing	329
Central Pharmaceuticals	347
HealthCare Managers & Consultants	343
International Tours	353
Lake Charlevoix	354
Lilly, Eli & Co.	319
Lincoln National Life	Cover
Medical Protective	325
Palisades Pharmaceuticals	316
Physicians Billing Service of Indiana	329
Physicians' Directory	356
Physicians Insurance Co. of Indiana	Cover
Postgraduate Medicine	320
Roche Laboratories	320, 321
Spectrum Emergency Care	375
Summer Trace Retirement Community	323
University Microfilms	354
U.S. Air Force	349
U.S. Army National Guard	328
Van Ausdall + Farrar	Cover

In accepting advertising for publication, *INDIANA MEDICINE* has exercised reasonable precaution to ensure that only reputable, factual advertisements are included. However, we do not have facilities to make comprehensive or complete investigation, and the claims made by advertisers in behalf of goods, services, medicinal preparations, apparatus or physical appliances are to be regarded as those of the advertisers only. Neither sanction nor endorsement of such is warranted, stated or implied by the association.

Are you moving?

If so, please send change of address to the Indiana State Medical Association, Membership Department, 3935 N. Meridian St., Indianapolis, IN 46208, at least six weeks before you move.

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

County: _____

Office phone: _____ Home phone: _____

IMPORTANT - Attach mailing label from your last copy of *INDIANA MEDICINE* here:



"...Your financial security specialists are on call"

We understand a physician's insurance deserves specialized attention. Our services are designed with the physician in mind.

Working with American Physicians Life and Lincoln National Life, we have available a comprehensive portfolio of insurance products. These products include life insurance, professional disability income coverage, business overhead expense, qualified pension plans, tax-deferred annuities, hospitalization-major medical insurance and dental insurance. The products can be customized to meet your personal needs as well as those of your professional corporation.

Williams/Townsend Associates, Inc. will assist you with your insurance needs. That's our specialty!!!

**Endorsed by the
Indiana State Medical Association**

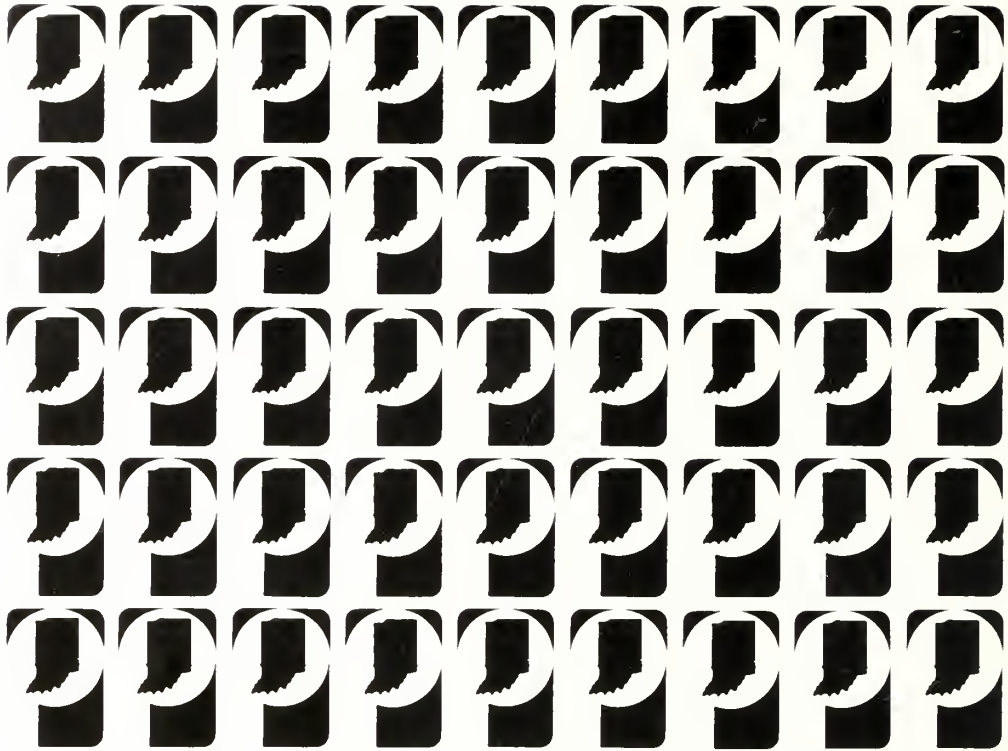


AMERICAN PHYSICIANS LIFE



For more information contact:

Earl W. Williams
Professional Account Representative
11595 North Meridian Street, Suite 802
Carmel, IN 46032
(317) 573-6520
Indiana 1-800-421-3020
Other States 1-800-428-7105



The Doctor's Insurance Company. In More Ways Than One.

Physicians Insurance Company of Indiana (PICI) has a different approach to medical professional liability insurance. Indiana physicians serve on the Board of Directors, Underwriting and Claims Committees. PICI works closely with the Indiana State Medical Association. It talks with physicians. It listens to physicians. It understands. It cares. PICI really is the doctor's insurance company, in more ways than one.



**PHYSICIANS INSURANCE
COMPANY OF INDIANA**

8425 Woodfield Crossing Boulevard, Indianapolis, Indiana 46240
(317) 254-3970 ■ Toll Free 1-800-284-7424

INDIANA MEDICINE

The Journal of the Indiana State Medical Association

June 1990

Vol. 83, No. 6

THE FRANCIS A. COUNTEWAY
LIBRARY OF MEDICINE
BOSTON, MA

JUN 5 1990

MEDICAL RECORDS RELEASE



WHAT EVERY PHYSICIAN SHOULD KNOW

IF A CONSENTED TO
N.A. JOURNAL OF
IN STATE OF
REGION



Young Physician Protection Plan

PICI's unique Young Physician Protection Plan recognizes the emerging nature of a new doctor's exposure to medical professional liability.

The Plan begins during medical residency, when you receive full coverage and a 75% discount.

It continues, or can begin, during your first *four* years of practice, when the full coverage continues and the premium for your medical specialty is discounted by 65%, 50%, 25%, and 10%, respectively.

During the fifth and each subsequent year of coverage, you are eligible for Preferred Risk status, achieved by attending an approved Risk Management Seminar, which provides a five

percent premium credit. You also become eligible for claims-free premium credits accumulating to as much as 10 percent.

There's much more to the Young Physician Protection Plan: the highly desirable occurrence form of coverage; PICI's "physician consent" rule for claims settlements; vigorous opposition to unwarranted claims; the knowledge that Indiana physicians play an active role in your insurance company.

The Young Physician Protection Plan. Available only from PICI. The Plan that assures young physicians the highest quality protection, at appropriate rates, throughout their medical careers... from the beginning.



**PHYSICIANS INSURANCE
COMPANY OF INDIANA**



"Together, We Make The Difference"

8425 WOODFIELD CROSSING BOULEVARD
INDIANAPOLIS, INDIANA 46240, SUITE 300
TOLL FREE 1-800-284-7424

INDIANA MEDICINE

The Journal of the Indiana State Medical Association

June 1990

Vol. 83, No. 6

scientific contributions

THE FRANCIS A. COUNTWAY
LIBRARY OF MEDICINE
BOSTON, MA

JUL 5 1990

CME

Lasers in dermatology394

RADIOLOGY CLINIC

Unilateral deformity of the hand406

HAND CLINIC

Dupuytren's disease408

Thrombolytic therapy in
acute coronary thrombosis410

Cardiac rupture following acute myocardial infarction:
A case with successful surgical treatment414

features

Medical records release:

What every physician should know418
ISMA's general counsel answers the most frequently asked questions
concerning medical records release.

Terminating the physician-patient relationship422
Physicians should know the proper way to terminate a physician-
patient relationship without risking a lawsuit.

ISMA Constitutional Amendment424

A review of the Annals of the Royal College of Surgeons426
Highlights of the January 1990 issue of the *Annals of the Royal
College of Surgeons of England*.



Cover story on page 418. Cover
art by Diane Alfonso, Indianapolis.

departments

stethoscope	385
from the museum	386
cme calendar	390
editorial	393
cme quiz	404
drug names	412
book reviews	429
news briefs	450
obituaries	451
people	452
classifieds	454

Spectrum Emergency Care, Inc.

We currently have part-time, full-time and Medical Director positions available in various low to moderate volume Emergency Departments throughout Indiana. We can offer you a flexible schedule from month to month with no over-head, office expenses and no on-call duty. Physicians receive a competitive hourly rate and the best occurrence malpractice insurance in the industry. Full-time physicians (those who provide 48 hours per week) may also receive relocation assistance, CME funds, and Indiana licensing fee reimbursement. In addition, Medical Directors are offered administrative orientation and training, health, life, dental and disability insurance and a 401k retirement plan. Call us today for more information and an application.

Joan E. Logel, Physician Recruiter
1-800-325-3982, ext. 3087



SPECTRUM EMERGENCY CARE, Inc.

P.O. Box 27352, St. Louis, MO 63141

INDIANA MEDICINE

Devoted to the interests of the medical profession and public health in Indiana since 1908.

EDITOR

Frank B. Ramsey, M.D.

MANAGING EDITOR

Tina Sims

EDITORIAL ASSISTANT

Toni Settle

BUSINESS MANAGER

Richard R. King

CIRCULATION

Dotty Martens

EDITORIAL BOARD

Elton Heaton, M.D.

Richard N. Dexter, M.D.

(Terms expire Dec. 31, 1991)

Robert L. Rudesill, M.D.

Robert C. Ziss, M.D.

(Terms expire Dec. 31, 1992)

Thomas J. Conway, M.D.

I.E. Michael, M.D.

(Terms expire Dec. 31, 1990)

Mike Agostino

Mark Rodefeld

(Medical students)

CONSULTING EDITORS

Steven C. Beering, M.D.

Charles A. Bonsett, M.D.

Alvin J. Haley, M.D.

Rodney A. Mannion, M.D.

Alan T. Marty, M.D.

W.D. Snively Jr., M.D.

INDIANA MEDICINE (ISSN 0746-8288) is published monthly by the Indiana State Medical Association. Second-class postage paid at Indianapolis, Ind., and additional mailing offices.

Address correspondence relating to editorial material, advertising or subscriptions to: INDIANA MEDICINE, 3935 N. Meridian St., Indianapolis, IN 46208. Phone (317) 925-7545 or 1-800-969-7545 (in Indiana only).

Annual subscription rates for nonmembers: \$24 domestic, \$26 Canada, \$27 foreign. Medical library rates: \$22 domestic, \$23 Canada, \$24 foreign. Full-time Indiana medical students: \$12. Single copies not available. Subscriptions are renewable annually.

POSTMASTER: Send address changes to INDIANA MEDICINE, Indiana State Medical Association, c/o Membership Department, 3935 N. Meridian St., Indianapolis, IN 46208.

Views expressed do not necessarily reflect the opinions of the editors. No copyright is claimed, unless specifically indicated. Copyright rests solely with authors, who are responsible for statements in their articles. Scientific and editorial contributions are accepted for exclusive publication, subject to editorial requirements. Instructions for authors available upon request.

All issues since 1967 are available on microfilm from University Microfilms International, 300 N. Zeeb Road, Ann Arbor, MI 48106. Indexed in *Index Medicus* and *Hospital Literature Index*.

Advertising rates and data available upon request. INDIANA MEDICINE reserves the right to accept or reject advertising copy.

Medicare amendments bill needs additional support

Physicians are being asked to help support H.R. 4475, Congressional legislation known as the Medicare Physician Regulation Relief Amendments of 1990. J. Roy Rowland, M.D., D-Ga., House Energy and Commerce Health Subcommittee member, is the original sponsor of the bill that Rowland calls "an important first step to reverse some of the onerous and counterproductive aspects of the Medicare program."

No Indiana congressmen are co-sponsors of this resolution. Physicians can support the bill by asking their representatives to sign on as co-sponsors.

Sentinel changes policy on pre-procedure review

Sentinel Medical Review Organization has developed a solution to the difficult problem of pre-procedure review requirements for emergency and weekend surgeries. Physicians now can call Sentinel to obtain a "dummy" treatment authorization number (D-TAN) for surgeries performed after hours. To obtain this number, call Sentinel, 1-800-877-2901, before submitting the claim to Medicare.

Any surgery receiving a D-TAN will be subject to a retrospective post-payment review for medical necessity and procedure appropriateness.

Physicians who have problems obtaining a D-TAN should call Phil Morphew, chief executive officer of Sentinel, (812) 234-1499.

Physicians asked to complete surveys on indigent care

ISMA members are being asked to complete and return a survey on indigent care that will be inserted with the June issue of *ISMA Reports*. Physicians will be asked how much free care they give to indigent patients.

The survey is being done in response to Resolution 89-23, adopted by the House of Delegates last October. The ISMA has agreed to work with the Indiana Commission on Health Policy to determine the amount of free care given to indigent patients.

ISMA to hold 141st annual convention Nov. 2 to 4

ISMA members are reminded to circle Nov. 2 through 4 on their calendars. Those are the dates of the annual ISMA convention, to be held at the Radisson Plaza and Suite Hotel at Keystone at the Crossing in Indianapolis. The convention will include House of Delegates sessions, specialty society meetings, a general education session, a '50s theme reception, exhibits and the President's Night dinner. □

■ from the museum

The Indiana Medical History Museum staff often is asked the difference between its annual operating support campaign and the "Med Mus" optional contribution on the Indiana State Medical Association dues form.

The operating support campaign, first conducted last November, helps fund the less glamorous aspects of museum operations, such as heating, electricity, maintenance and salaries. Without money for these expenses, the museum would not be able to remain open to provide programs.

The "Med Mus" donations come from those who check the "Med Mus" box on the Indiana State Medical Association dues form. The \$10 dues entitle physicians to membership in the museum and help to defray the costs of printing the museum newsletter *Snakeroot Extract* and to provide programs and exhibits at the museum.

Because the museum receives no funds from the state or other agencies, it must rely on financial support from membership and private contributions. For years, memberships were the primary source of support. As operating costs of the museum increased, however, the museum decided to conduct an annual operating support campaign.

The Indiana Medical History Museum thanks those individuals listed below for contributing to the annual operating support campaign. Their support is most appreciated.

Annual operating support donors

Allied Hospital Pathologists
George W. Applegate, M.D.
Robert D. Arnold, M.D.
William A. Atz, M.D.
Eldon E. Baker, M.D.

Leslie M. Baker, M.D.
Gregorio R. Baluyot, M.D.
Ronald Blankenbaker, M.D.
William L. Bridges, M.D.
John M. Brown, M.D.
Rebecca L. Bushong, M.D.
Joyce Byllesby, M.D.
William K. Byrum
Dr. and Mrs. William H. Cordell
Clyde G. Culbertson, M.D.
David R. Cundiff, M.D.
Stephen F. Dierdorf, M.D.
J. Frederick Doepker, M.D.
Nancy Drew
William M. Dugan Jr., M.D.
Charles R. Echt, M.D.
Dr. and Mrs. John Eliades
Fairfield Orthopaedic Surgeons
Alexander Ferenczy, M.D.
John Franklin
Dr. and Mrs. Kenneth L. Gray
Drs. Gulley, Valentine and Guelda
Robert C. Hall, M.D.
Robert W. Harger, M.D.
Verne K. Harvey Jr., M.D.
Eric Henricks, M.D.
Jack W. Higgins, M.D.
Larry G. Hitchcock, M.D.
Mark A. Hochstetler, M.D.
Dr. and Mrs. Richard Horning
Jesse D. Hubbard, M.D.
Mrs. John E. Jesseph
Allen W. Jones, M.D.
Anabel R. Jones, M.D., and Wiley A. Jones
Francis P. Jones, M.D.
John U. Keating, M.D.
Clyde B. Kernek, M.D.
William F. Kerrigan, M.D.
Dr. and Mrs. John Klein
E. Ray Knight, M.D.
Kenneth G. Kohlstaedt, M.D.
Dr. and Mrs. J.W. Lang
Robert M. LaSalle Jr., M.D.
Stephen R. Lipp, M.D.
Dr. and Mrs. Thomas E. Lunsford
Dr. and Mrs. George McAfee
Richard J. McAlpine, M.D.
Calvin J. Maestro Jr., M.D.
Griffith Marr, M.D.
Michael O. Mellinger, M.D.
Sherman Minton, M.D.
Glenn Moak, M.D.
Jane Moore
John M. Moore, M.D.
Dr. and Mrs. James Mount
Robert W. Mouser, M.D.
Jans Muller, M.D.
Dr. and Mrs. Victor H. Muller, M.D.
Josephine Murphy, M.D.
Stephen R. Myron, M.D.
Arthur L. Norins, M.D.

Raymond J. O'Brien, M.D.
Martin J. O'Neill, M.D.
Orthopedic Associates of LaPorte Co., Inc.
R.J. Pancer, M.D.
Geraldine Peiffer, M.D.
Jean Perrin, M.D.
T. Neal Petry, M.D.
John Pittman, M.D.
Frank W. Ratliff, M.D.
Hassan Rayes, M.D.
Gabriel Reising, M.D.
Dr. and Mrs. Raymond Rice
John A. Robb, M.D.
Rudolf Rouhana, M.D.
Dr. and Mrs. Carl N. Rutt
Rust and Stump Internists, Inc.
Thomas Scherschel, M.D.
Charles Schreiber
Dwight W. Schuster, M.D.
William M. Sholty, M.D.
Dr. and Mrs. Richard B. Schnute
John L. Searight, M.D.
John H. Seward, M.D.
John D. Slack, M.D.
Alan F. Smith, M.D.
Dr. and Mrs. James Warren Smith
Lee Smith Jr., M.D.
Mrs. Lewis Smith
Mary Soule, M.D.
Carl B. Spath, M.D.
Frederick Bates Stehman, M.D.
Edward F. Steinmetz, M.D.
James Stephens, M.D.
V.K. Stoelting, M.D.
John G. Suelzer, M.D.
Margie C. Sweeney, M.D.
Gayle Thornbrough
Dr. and Mrs. Frank B. Throop
Charles E. Tomich, D.D.S.
Teresa Trierweiler, M.D., and Robert Trierweiler
C.J. Van Tassel Jr., M.D.
Dennis W. Vane, M.D.
Vernon Vix, M.D.
Kathy Voegel
T. Max Warner, M.D.
Kathleen Warfel, M.D.
Mrs. Donald J. White
Michael L. Yacko, M.D.
Michael S. Yacko, M.D.
C.A. Yale, M.D.
Dr. and Mrs. Don Ziperman

The annual giving campaign is not over, so if you would like to send a contribution, please mail it to: Indiana Medical History Museum, 3000 W. Washington St., Indianapolis, IN 46222. □



The practice is yours.
The patients are yours.
The prescriptions are yours.
Make the prescribing decision yours, too.

Sign on the left on the
"Dispense as written" line.

Specify **VALIUM**
brand of
diazepam/Roche®

The cut out "V" design is a registered trademark of Roche Products Inc.



The one you know best.

YOCON[®]

YOHIMBINE HCl

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon[®] is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.^{1,2} Also dizziness, headache, skin flushing reported when used orally.^{1,3}

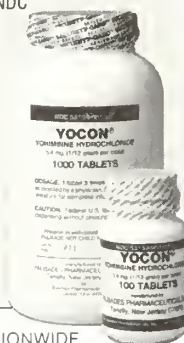
Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.^{1,3,4} 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.³

How Supplied: Oral tablets of Yocon[®] 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85



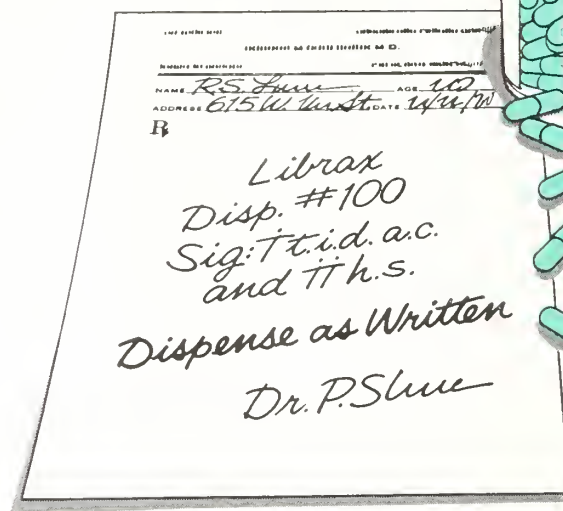
AVAILABLE AT PHARMACIES NATIONWIDE

**PALISADES
PHARMACEUTICALS, INC.**

219 County Road
Tenafly, New Jersey 07670
(201) 569-8502
1-800-237-9083

Specify Adjunctive

LIBRAX[®]



Each capsule contains 5 mg chlorthalidone HCl and 2.5 mg cimetidine bromide.

Please consult complete prescribing information, a summary of which follows:

- * **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective, as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlorthalidone HCl and/or cimetidine Br.
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur. Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazepines (see Drug Abuse and Dependence).

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlorthalidone HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlorthalidone HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuation of chlorthalidone; more severe seen after excessive doses over extended periods, milder after taking continuously at therapeutic levels for several months. After extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence.

ROCHE Roche Products

Roche Products Inc.
Manati, Puerto Rico 00701

IN

To insist on the brand, be sure to sign on the "Dispense as Written" line of your prescription.

In IBS,* when it's brain versus bowel,

IT'S TIME FOR THE PEACEMAKER.

In irritable bowel syndrome,* intestinal discomfort will often erupt in tandem with anxiety—launching a cycle of brain/bowel conflict. Make peace with Librax. Because of possible CNS effects, caution patients about activities requiring complete mental alertness.

*Librax has been evaluated as possibly effective as adjunctive therapy in the treatment of peptic ulcer and IBS.

Specify Adjunctive

LIBRAX®

Each capsule contains 5 mg clordiazepoxide HCl and 2.5 mg clidinium bromide.



■ cme calendar

Indiana University

The Indiana University School of Medicine will sponsor the following courses:

June 16 – James E. Bennett Surgical Society Inaugural Scientific Meeting, University Place Executive Conference Center and Hotel, Indianapolis.

June 18-20 – The Infant in the Newborn Intensive Care Unit: Overview of Medical and Surgical Problems with Nutritional Implications, University Place Executive Conference Center and Hotel, Indianapolis.

July 9-18 – 75th Annual Anatomy and Histopathology of the Head and Neck and Temporal Bone, I.U. Medical Center, Indianapolis.

Aug. 10-11 – Critical Care and the Surgical Patient, University Place Executive Conference Center and Hotel, Indianapolis.

For information, call Melody Dian, (317) 274-8353.

Methodist Hospital

Methodist Hospital of Indiana will sponsor the following CME courses:

June 15-16 – Laparoscopic Cholecystectomy Workshop, Methodist Hospital, Wile Hall #310, Indianapolis.

July 1-7 – Mini-Fellowship in Management of Diabetes, Happy Hollow

Camp, Nashville, Ind.

Aug. 3-5 – Immunological Obstetrics Symposium: Oncology, Methodist Hospital of Indiana, Petticrew Auditorium, Indianapolis.

Aug. 30-Sept. 2 – Eighth World Congress on Endourology & E.S.W.L., Hyatt Regency, Washington, D.C.

Sept. 15 – Management of Silent Ischemia, Hyatt Regency, Indianapolis.

For additional program information, call Dixie Estridge, (317) 929-3733.

St. Vincent Hospital

St. Vincent Hospital and Health Care Center in Indianapolis will sponsor these CME courses:

Sept. 12-14 – Cardiopulmonary Rehabilitation Symposium, Hilton-on-the-Circle, Indianapolis.

Oct. 5 – Richter Day, Radisson Hotel, Indianapolis.

For information, call Beth Hartauer, assistant coordinator, Medical Education, (317) 871-3460.

Ohio State University

The Ohio State University Center for Continuing Medical Education will sponsor "Development and Plasticity of the Spinal Cord" July 18 through 20 at the Novice G. Fawcett Center for Tomorrow in Columbus, Ohio.

The registration fee is \$75 or \$85 after July 8. For more information, call the Center for Continuing Medical Education at 1-800-492-4445.

University of Michigan

The University of Michigan Medical School will sponsor the following CME courses:

July 12-14 – First Bristol-Meyers Squibb Symposium on Pain, Towsley Center, Ann Arbor, Mich.

July 20-23 – 16th Annual Advances in the Management of Infectious Diseases, Grand Hotel, Mackinac Island, Mich.

July 22-25 – Fourth Annual Symposium on Breast Disease, Grand Traverse Resort, Grand Traverse Village, Mich.

For information on the July 12-14 symposium, call Gayle Fox, (313) 763-1400. For information on the July 20-23 course, call Betty Phillips, (313) 763-1400. For information on the July 22-25 symposium, call Ted Ciganik, (313) 763-1400.

University of Massachusetts

The University of Massachusetts Medical School will sponsor the "Sixth Annual Berkshire Medical Conference" July 12 to 14 and July 19 to 21 at the Country Inn and Conference Center in Jiminy Peak, Hancock, Mass.

This conference is geared to the primary care physician and will present updates on office-based management of cardiac care and other special problems in primary care. The registration fee is \$295 for one conference and \$500 for both conferences.

For information, contact Neil Novik, Ph.D., Berkshire AHEC, 725 North St., Pittsfield, MA 01201, (413) 447-2417. □



Dr. Holwick outside of hospital where she practices as a civilian traumatologist



Dr. Holwick in operating room at Letterman Army Medical Center.

JANN L. HOLWICK, M.D.

General and Trauma Surgeon.
Captain, U.S. Army Reserve.

EDUCATION University of Southern California, B.S.;
University of California School of Medicine.

RESIDENCY Harbor General Hospital—UCLA
Medical Center.

HOSPITAL AFFILIATIONS St. Luke Hospital;
Huntington Memorial Hospital, Pasadena, California;
Traumatologist, Arcadia Methodist Hospital, Arcadia,
California.

OUTSTANDING ACHIEVEMENTS Borden
Freshman Prize; Alpha Lambda Delta; Phi Beta Kappa;
Phi Kappa Phi; Bovard Award; ALD Award; American
Institute of Chemists Medal Award; Summa Cum Laude,
University of California; Alpha Omega Alpha.

“When you enter private practice, the only cases seen are usually those limited to your specialty. Serving as a physician in the Army Reserve offers me a departure from my daily routine. I can be involved in virtually anything I choose. If a certain case interests me, I can ask to be part of the surgical team. If I wish to spend time teaching students, I have that option, too.”

“As a Reserve physician, I’ve had the opportunity to interact with different people, from various backgrounds, with assorted medical and social viewpoints. As a result, I’ve grown as a physician and as a person.”

“I spent six months looking into the Army Reserve program before I joined, wanting to make sure that my skill and time would be put to good use. I’ve been a Reservist three years now, and I still find it extremely rewarding. I have the satisfaction of knowing that I’m serving my country.”

Find out more about the medical opportunities in the Army Reserve. Call toll free 1-800-USA-ARMY.

**ARMY RESERVE MEDICINE.
BE ALL YOU CAN BE.**

*Because safety
cannot be taken for granted
in H₂-antagonist therapy*

AXID[®]
nizatidine

Minimal potential for drug interactions

*Unlike cimetidine and ranitidine,¹
AxiD does not inhibit the cytochrome
P-450 metabolizing enzyme system.²*

Swift and effective H₂-antagonist therapy

- *Most patients experience
pain relief with the first dose³*
- *Heals duodenal ulcer
rapidly and effectively^{4,5}*
- *Dosage for adults with active
duodenal ulcer is 300 mg once nightly
(150 mg b.i.d. is also available)*

References

1. *USP DI Update*, September/October 1988, p 120.
2. *Br J Clin Pharmacol* 1985; 20: 710-713.
3. *Data on file*, Lilly Research Laboratories.
4. *Scand J Gastroenterol* 1987; 22(suppl 136): 61-70.
5. *Am J Gastroenterol* 1989; 84: 769-774.

AXID[®] nizatidine capsules

Brief Summary. Consult the package literature for complete information.

Indications and Usage: 1. *Active duodenal ulcer*—for up to eight weeks of treatment. Most patients heal within four weeks.

2. *Maintenance therapy*—for healed duodenal ulcer patients at a reduced dosage of 150 mg h.s. The consequences of therapy with AxiD for longer than one year are not known.

Contraindication: Known hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other H₂-receptor antagonists.

Precautions: *General*—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests—False-positive tests for urobilinogen with Multistix[®] may occur during therapy.

Drug Interactions—No interactions have been observed with theophylline, chloridazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. AxiD does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of AxiD (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

AxiD[®] (nizatidine, Lilly)

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for AxiD.

AxiD was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect, but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

AxiD[®] (nizatidine, Lilly)

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of AxiD.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered AxiD and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H₂-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H₂-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H₂-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of AxiD have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

PV 2098 AMP

[091289]

Additional information available to the profession on request.



ELI Lilly and Company
Indianapolis, Indiana
46285

NZ-2924-B-049310

© 1990, ELI LILLY AND COMPANY

AxiD[®] (nizatidine, Lilly)

George H. Rawls, M.D.
ISMA President

Access to quality medical care is absolutely essential for the survival of the American system of medical practice. Admittedly, our system is the best in the world for those to whom it is accessible. Approximately 37 million people do not have medical insurance and have difficulty entering the system because they do not have the money to buy insurance. Several proposals are being considered to correct this problem.

There is, however, an additional problem. There are approximately 740,000 Medicare recipients and 242,300 Medicaid recipients in Indiana. These individuals often have difficulty obtaining needed medical services. When they call to schedule an appointment, they frequently are told they need a certain amount of cash to be seen. The patient usually is not asked if he or she has Medicare or Medicaid. This occurs to primary as well as referred patients.

A reference committee discussed this problem at the last

annual meeting of the Indiana State Medical Association. The House of Delegates resolved that ISMA encourage its members to provide care for Medicare recipients (Resolution 89-24). This does not mean that assignment necessarily has to be accepted. The physician may still balance bill if he or she is not a participating provider. This should be explained to the patient and the procedure for payment discussed, whether the physician's office files the claim or whether the patient files the claim. These patients usually are elderly, often apprehensive and sometimes discouraged from seeking needed medical care if they do not understand the Medicare system or if they perceive that office personnel are abrasive or the physician appears mercenary. If a physician is not accepting new patients, the physician's office might suggest another physician who would accept the patient. The office staff also could provide the phone number of a county medical society or a local hospital, both of which may be able to refer the patient.

By helping these elderly or disabled people enter the medical care system as smoothly as pos-

sible, the physician will be providing a needed service. Moreover, the physician's image will be lustrous, and any attempt to legislate acceptance of Medicare as a condition of licensure would be blunted.

Medicaid reimbursement in Indiana is one of the best in the country. This must be preserved. The ISMA is encouraging increased provider participation by reducing the barriers to physicians serving Medicaid-eligible and medically indigent patients (Resolution 89-20A). The same courteous, prompt and efficient service should be extended to these patients. They often feel slighted and neglected and fail to seek preventive and follow-up care. Their treatment is often episodic and emergent in nature. Therefore, they are sicker when seen. Treatment must be more intense and costly. Infant mortality is high, and life expectancy is low.

Indiana physicians are compassionate and caring. By assuring that we treat Medicare, Medicaid and indigent patients the same as our other patients, we will portray the true essence of our existence. □

Lasers in dermatology



Abstract

A laser is a device that produces a parallel bundle of photons of equal wavelength that are temporally and spatially in phase. The laser light can be focused to produce high energy in very small spots. The pulsed dye laser, the argon laser and the carbon dioxide laser are commonly used in dermatology. The pulsed dye laser and the argon laser are especially effective for cutaneous vascular lesions such as port-wine hemangiomas. It is important for the physician to be knowledgeable about laser-tissue interaction and laser safety to avoid laser accidents.

C. William Hanke, M.D.
Indianapolis

The first laser, the ruby laser, was developed by Maimon in 1960.¹ Other laser systems evolved in subsequent years and have been used in many areas of medicine. Leon Goldman established the laser laboratory at the University of Cincinnati in 1961. Dr. Goldman, a dermatologist, used the skin as a model for laser-tissue interaction in many clinical and experimental studies.

The word "laser" is an acronym for light amplification by stimulated emission of radiation. Atoms or molecules emit photons of specific wavelength when they change from excited to stable energy states. If the emitted photon collides with a similarly excited atom or molecule, the second atom or molecule will emit a photon synchronized in space and time with the initial photon. An optical cavity (i.e., the laser tube) with reflective mirrors at both ends allows the photon collision-emission process to be amplified (Figure 1). The unidirectional,

single wavelength laser light that is produced can be directed through the particular laser system to produce effects on tissue.

Laser light has three properties that differentiate it from natural or artificially produced light: coherence, collimation and monochromaticity. Coherence refers to photon wave patterns that are temporally and spatially in phase. Collimation means that photons travel in nearly parallel paths without beam divergence; therefore, the energy of the laser beam remains constant at varying distances from the laser tube. Collimation allows the laser beam to be focused to a very small spot size for surgical use. Monochromaticity means that the laser photons are of identical wavelength and color.

Consequently, laser light is very different from natural and artificial light. Natural light is composed of many colors or wavelengths (i.e., it is multichromatic), is not temporally and spatially in phase (i.e., it is incoherent) and diverges from the light source (i.e., it is non-collimated).

INDIANA MEDICINE offers its readers a Continuing Medical Education series of articles prepared by the faculty of the Indiana University School of Medicine. The program is coordinated and supported by a grant from the school's Division of Continuing Medical Education.

The I.U. School of Medicine designates this CME activity for one credit hour in Category I of the Physician's Recognition Award of the American Medical Association.

To obtain Category I credit for this month's article, complete the quiz following this article.

In the past decade, we have learned much about laser effects on tissue, and our ability to control laser-tissue interaction continues to be refined. The laser systems currently used in dermatology are listed in Table 1. The most important of these are the pulsed dye laser, the argon laser and the carbon dioxide laser. Each of these lasers and its clinical applications will be discussed briefly.

The pulsed dye laser

The pulsed dye laser (PDL) is a relatively new laser system for cutaneous vascular lesions in children that uses rhodamine dye to produce 585 nm yellow laser light. The laser light is delivered to the target tissue through a fiberoptic cable in 450 microsecond pulses. The very short pulse duration allows cutaneous blood vessels to be treated selectively without thermal damage to the surrounding dermis. This is possible because the pulse duration is less than the cooling time of the target tissue.

The 585 nm laser light is absorbed almost totally by oxyhemoglobin in the dermal blood vessels. The 585 nm wavelength minimizes melanin absorption of laser light and maximizes cutaneous penetration of the laser. In darker-skinned races or in individuals with tanned skin, the normal melanin pigment in the epidermis absorbs much of the laser light; therefore, the PDL often does not produce the desired therapeutic effect in dark-skinned patients.

The relatively selective damage to dermal blood vessels causes a bruise, rather than the superficial burn that is seen with other lasers, to appear on the skin at the treatment site. The gray-

blue bruises resolve in seven to 14 days except in darker-skinned individuals where resolution may take three months. In most patients, a wound is not produced, and wound care usually is unnecessary. The risk of scarring is less than 1% with the PDL, and the normal skin texture and pigmentation are preserved.²

Most patients feel the laser pulse as a "rubber band snapping against the skin." Adults and children older than 10 years of

age almost always tolerate PDL treatment without anesthesia. Topical or local anesthesia occasionally is used. Children younger than 10 years of age sometimes can be extremely anxious and may require general anesthesia or sedation with chloral hydrate.

PDL test areas often are initially performed to select the most effective laser energy for treatment. If the laser test area is observed to be fading four to eight

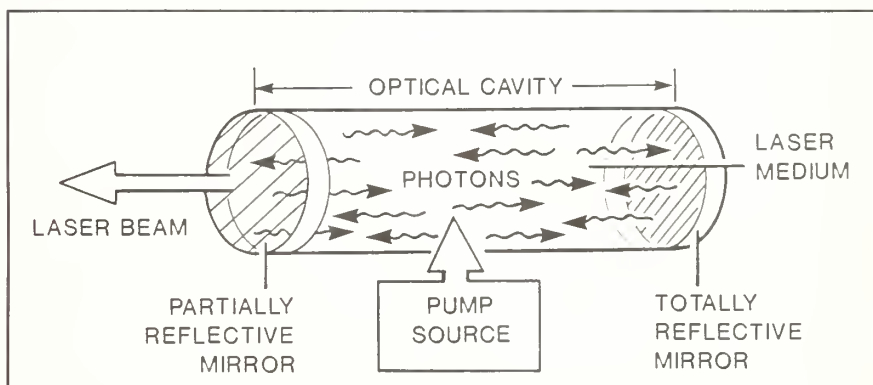


Figure 1: Diagram of a laser tube with a totally reflective mirror at one end and a partially reflective mirror at the other. The laser beam consists of photons of a specific wavelength.

Table 1

Lasers in dermatology

System	Wavelength (nm)	Use
Argon	476-514	Vascular and pigmented lesions
Carbon dioxide	10,600	Cutting, vaporization
Continuous dye	630	Photodynamic therapy
	577	Vascular lesions
Copper vapor	578	Vascular lesions
Excimer	193, 248, 308, 350	Cutting
Gold vapor	628	Photodynamic therapy
Helium-neon	632	Aiming beam for other lasers
Nd-YAG	1,060	Deep vascular lesions
Pulsed dye	577-585	Vascular lesions
Ruby	694	Tattoos, non-vascular pigmented lesions

weeks after testing, larger areas are selected for treatment. Additional treatments are given to the same area at 12-week intervals until maximal fading occurs. Four to six treatment sessions may be required to fade a port-wine hemangioma by 75% to 100%. Total eradication of the port-wine hemangioma is not possible in all cases.

Port-wine hemangiomas

Port-wine hemangiomas (PWHs) are the most common indication

for PDL. Other indications are listed in *Table 2*. PWHs are benign proliferations of blood vessels that usually are present at birth and may get worse throughout life. PWHs in children are composed of small dermal blood vessels that contain few red blood cells (*Figure 2*). Consequently, the lesions are pink and macular. Early treatment of PWHs in children is more effective because the lesions grow larger and darker as the patient grows (*Figure 3*).² The thinner dermis in children makes

PWHs easier to treat, and fewer treatments may be necessary (*Figure 4*). If a PWH involves the ophthalmic division of the trigeminal nerve, the patient should be examined for possible glaucoma.

PDL may not be as helpful in adults with deep blue-red nodular hypertrophic PWHs. These lesions may respond better to argon laser surgery. Lesions on the face and neck respond best to PDL. PWHs on the extremities respond less well, but PDL often is still worthwhile. The rate of scarring on the extremities, like the face, is very low.

The argon laser

The argon laser is a visible laser that emits blue-green light at 488 nm and 514.5 nm. It is a continuous laser that also can be used in the "pulse" mode by using a shuttering mechanism. The laser light is transmitted to tissue through a flexible fiberoptic cable. The argon laser penetrates the skin to a depth of approximately 1 mm. Absorption is less selective than the PDL, although the skin chromatophores, oxyhemoglobin and melanin absorb some of the laser energy. Epidermal melanin can absorb large amounts of argon laser light before it penetrates to the level of dermal blood vessels. This becomes a significant problem in patients with deeply pigmented or tanned skin.

The argon laser also results in more nonselective thermal heating of the dermis than the PDL. This increases the possibility of scarring, especially in the hands of less experienced laser surgeons. The results obtained with the argon laser are more technique-dependent than the PDL.

The argon laser was the first laser to be applied effectively for

Table 2

Skin lesions treated with the pulsed dye laser

- | | |
|---|--|
| • Port-wine hemangioma (infants and adults) | • Capillary hemangioma (strawberry mark) |
| • Telangiectasia | • Angiokeratomas |
| • Cherry hemangiomas | • Glomus tumors |
| • Venous lakes | • Blue rubber-bleb nevi |
| • Telangiectatic rosacea | • Lentigines |
| • Pyogenic granuloma | • Nevus of Ota |
| • Angiofibromas | • Café au lait spots |

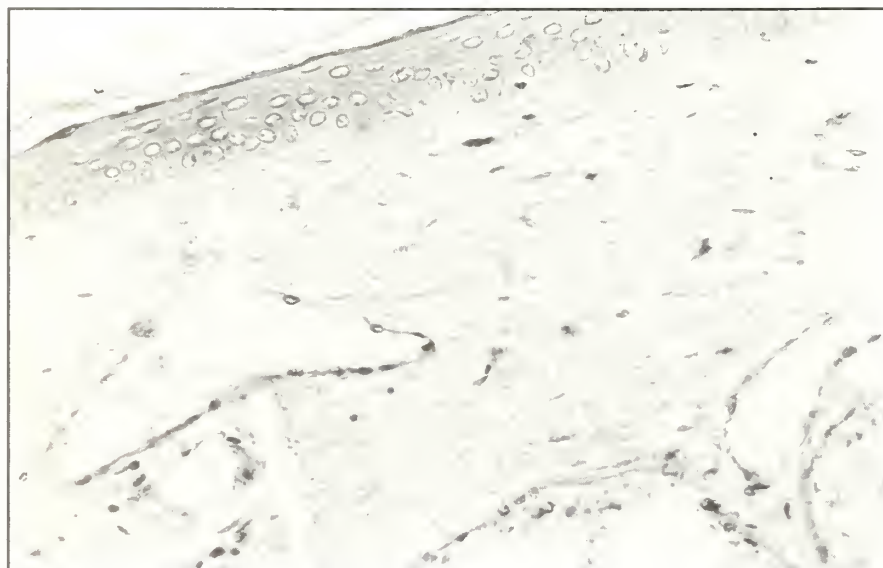


Figure 2: A biopsy of a port-wine hemangioma shows dilated capillaries in the papillary and reticular dermis (hematoxylin and eosin stain x 200).



Figure 3: This 40-year-old man had a pale pink port-wine hemangioma on the cheek at birth. The hemangioma has gradually darkened to a burgundy color.



Figure 4: Multiple 5 mm bruises on the lateral right cheek and temple produced during pulsed dye laser (PDL) treatment of a port-wine hemangioma. The medial right cheek shows fading of hemangioma in areas of previous treatment. Additional PDL treatment will be necessary for further improvement.



Figure 5: This 31-year-old man had a red port-wine hemangioma on the upper cheek since birth. A white argon laser test area can be seen in the center of the hemangioma.



Figure 6: The hemangioma has faded considerably six months following a single treatment with the argon laser.

dermatologic use. It has been used to treat PWHs, telangiectasias, other vascular lesions, and pigmented skin lesions. The argon laser was the only effective treatment for PWHs before the development of the PDL. Argon laser has been used successfully to lighten PWHs, especially the mature blue-purple nodular hypertrophic variety. Argon laser treatment at an early stage in the evolution of a PWH can prevent nodularity from occurring.

Most patients with PWHs that are treated with the argon laser are given local or general anesthesia. Permanent hypopigmentation has been reported in 20% of patients and scarring in 5%.³ Children with PWHs have always been approached with caution with the argon laser because of the potential for scarring, especially on the upper lip. Continuous wave argon laser works well in children when small beam diameters and low energies are used.⁴ Further work by other investigators will be necessary to define the technique more precisely.

In adults with PWHs, it is often advisable to perform laser testing with both argon laser and PDL to select the most effective treatment. Argon laser testing can be performed in either the continuous or shuttered (pulse) mode. Unlike the PDL, the argon laser produces progressive blanching of PWHs for as long as 12 months following treatment (*Figures 5 and 6*). Argon laser test sites can be evaluated after four months, but areas of previous argon laser treatment should not be treated for 12 months. The argon laser produces a superficial burn wound that requires dressing changes for one week to several weeks.

Table 3

Vascular skin lesions treated with the argon laser

- | | |
|------------------------|---|
| • Port-wine hemangioma | • Postrhinoplasty red nose |
| • Cherry angioma | • Kaposi's sarcoma |
| • Cavernous hemangioma | • Glomus tumor |
| • Capillary hemangioma | • Hereditary hemorrhagic telangiectasia |
| • Angiokeratoma | • Angiofibromas |
| • Acne rosacea | • Angioma serpiginosa |
| • Venous lakes | • Angiosarcoma |
| • Pyogenic granuloma | • Rhinophyma |
| • Spider angioma | • Granuloma faciale |
| • Telangiectasia | |

Table 4

Pigmented skin lesions treated with the argon laser

- | | |
|-------------------------------|----------------------------------|
| • Café au lait spots | • Congenital pigmented nevus |
| • Seborrheic keratosis | • Nevocellular nevi |
| • Lentigo (solar and simplex) | • Pigmented basal cell carcinoma |
| • Peutz-Jeghers spots | • Epidermal nevi |
| • Nevus of Ota | • Melasma |
| • Lentigo maligna | |
| • Malignant melanoma | |

Table 5

Skin lesions treated with the carbon dioxide laser

Laser vaporization

- Rhinophyma
- Tattoos
- Plantar warts
- Periungal warts
- Neurofibroma
- Pyogenic granuloma
- Syringoma
- Epidermal nevi
- Cherry angioma
- Steatocystoma
- Trichoepithelioma
- Granuloma faciale
- Angiofibromas
- Lymphangioma circumscriptum
- Digital mucous cyst
- Balanitis xerotica obliterans
- Condyloma acuminatum
- Superficial basal cell carcinoma

- Nodular amyloidosis
- Port-wine hemangioma
- Xanthelasma palpebrarum
- Cylindroma
- Blue rubber-bleb nevus
- Angiolymphoid hyperplasia
- Recalcitrant warts
- Angiokeratomas
- Multiple erupt-vellus hair cysts

Laser excision

- Rhinophyma
- Keloids
- Mohs micrographic surgery
- Skin cancer excision
- Bone removal
- Acne keloidalis nuchae
- Blepharoplasty
- Scalp reduction

The argon laser has several advantages over the PDL in the treatment of facial telangiectasias (Figures 7 and 8). The PDL beam diameter is much larger (i.e., 3 to 5 mm) than the diameter of most facial telangiectasias. Therefore, an area much larger than the telangiectasia must be treated if the PDL is used. The beam diameter of the argon laser, on the other hand, can be adjusted to 0.5 to 1 mm, which closely approximates the diameter of facial telangiectasias. Very minimal crusting follows argon laser treatment for telangiectasias, compared with the more noticeable gray-blue, 3- to 5-mm macules that persist for seven to 14 days following PDL. Both lasers can be used for facial telangiectasias without local anesthesia. The pulse duration of the argon laser can be reduced to less than 0.1 second to minimize patient discomfort.

The argon laser has not been effective in treating telangiectasias on the legs (i.e., spider veins). The PDL is often effective for

spider veins that are smaller than 0.2 mm in diameter. Larger spider veins are best treated with sclerotherapy using 23.4% sodium chloride or other injectable agents.⁵

A complete listing of cutaneous vascular lesions that can be treated with the argon laser is presented in Table 3. Difficult problems such as angiolymphoid hyperplasia, granuloma faciale and Kaposi's sarcoma have been treated successfully.

A listing of nonvascular pigmented cutaneous lesions that can be treated with the argon laser is presented in Table 4.

The carbon dioxide laser

The most versatile laser for use in dermatology is the carbon dioxide laser (CDL). The CDL beam can be focused to excise skin lesions bloodlessly or can be defocused to vaporize tissue. The 10,600 nm infrared light of the CDL is non-specifically absorbed by 0.1 mm of water or human tissue. The thermal damage to adjacent tissue is

very minimal. The CDL heats tissue fluid to 100°C with considerable steam production. A noxious "laser plume" consisting of steam and cellular debris must be removed continuously from the laser treatment site with a smoke evacuator.

PDL, argon and other lasers use a fiberoptic cable for delivery of laser energy to tissue. The fiberoptic cable delivery system is currently not an option with the CDL, and a somewhat cumbersome articulating arm with internal reflecting mirrors is required. A red helium-neon aiming beam is necessary to guide the invisible CDL beam.

The laser surgeon can move from the excisional to the vaporization functions of the laser by varying the laser-to-skin distance. A small spot size for excision is created by holding the laser hand-piece nearer to the skin (i.e., "focusing"). A smaller spot size has a greater power density than a larger spot size if the power is kept constant. A larger spot size



Figure 7: A 45-year-old man had multiple unsightly telangiectasias on the cheek.



Figure 8: The telangiectasias have resolved four weeks following a single argon laser treatment.

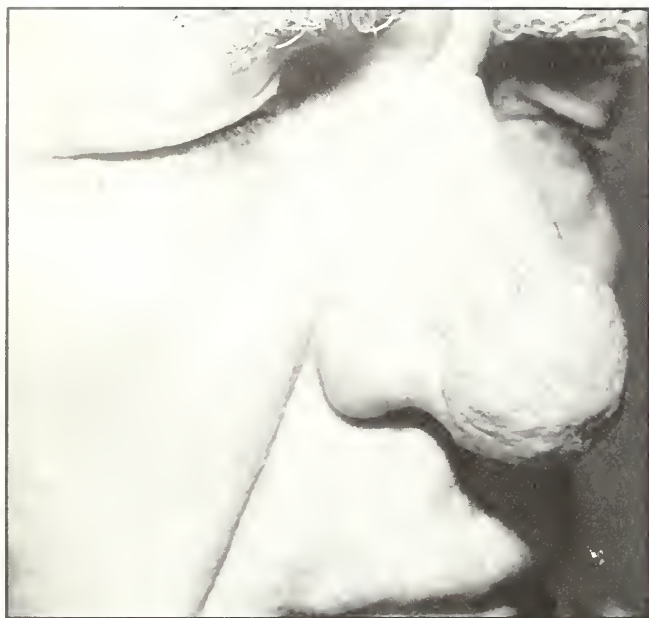


Figure 9: A 61-year-old man had a rhinophyma involving the distal one-half of the nose.



Figure 10: A bloodless laser wound is present immediately following carbon dioxide laser vaporization.

for vaporization is created by moving the handpiece away from the skin (i.e., "defocusing").

The CDL can be used in a continuous or a shuttered (i.e., pulse) fashion. Most CDL surgery is done under local anesthesia using the continuous method.

The CDL has several advantages for surgery: 1) Blood vessels and lymphatics less than 0.5 mm in diameter are sealed by the laser, resulting in bloodless surgery. Vessels larger than 0.5 mm require suture ligation or electrocoagulation. 2) The infection rate is reduced because the laser never touches the skin directly. 3) Nerve endings are sealed, theoretically limiting postoperative pain. 4) Scarring and abnormal healing are minimized because of the limited thermal damage that results from the effect of the laser on tissue.

When tissue is excised with the CDL, a beam diameter of 0.2 mm or smaller is used. As the excision is performed, all blood

vessels less than 0.5 mm in diameter are instantaneously sealed. CDL excision is an advantage particularly in patients who have pacemakers or are taking anticoagulants or when working in highly vascular areas.

When skin lesions are excised with the CDL, there is minimal thermal damage at the excisional margins. This minimal thermal damage is sufficient, however, to retard normal wound healing. Sutures are commonly left in place in these wounds for longer than would be required for a comparable scalpel wound. A complete list of skin lesions that have been treated with CDL excision and/or vaporization is presented in *Table 5*.

In the defocused vaporization mode, the CDL can be used to remove various skin lesions in thin layers without bleeding. Thermal damage to the surrounding tissues is minimal. Verrucae of all varieties (plantar, periungual, genital, etc.) are a common

indication for CDL vaporization. CDL vaporization of verrucae generally is performed only when standard treatment has failed. Skin with a wart reacts to the laser differently than normal skin when observed under magnification. The wart "bubbles and crackles" during carbon dioxide laser vaporization. Normal skin surrounding the wart does not do so, but instead undergoes a slow "browning." Laser treatment of warts is an effective treatment, but recurrences sometimes develop. Actinic cheilitis and rhinophyma can be treated with CDL with results that are often superior to other methods (*Figure 9-11*).⁶⁻⁸ Tattoos are treated with the CDL, but some type of scarring nearly always results.⁹

CDL also has been used occasionally to treat PWHs, especially when hypertrophic nodules develop.¹⁰

Other laser systems

The Neodymium-YAG (Nd-YAG)

laser is a near-infrared laser that delivers invisible 1,060 nm laser light. The laser light is scattered widely and has little color-specific absorption in tissue. The laser light penetrates the skin to a depth of approximately 8 mm and is effective for deep coagulation. The Nd-YAG laser is used primarily for hemostasis and tumor surgery in the specialties of urology, pulmonary medicine and gastroenterology. Occasionally, large cavernous hemangiomas of the skin and adjacent soft-tissue may require Nd-YAG laser coagulation.¹¹ In addition to the therapeutic effect, considerable scarring almost always occurs.

The ruby laser produces a 694 nm red laser light. The ruby laser was the first laser to be used on the skin in the early 1960s but was largely abandoned in favor of the argon and carbon dioxide lasers. A new ruby laser system, the Q-switched ruby laser, recently has been used effectively to treat tattoos and other pigmented skin lesions.¹² The red laser light is absorbed by the blue and black tattoo pigments. There appears to be little, if any, use for this laser in the treatment of cutaneous vascular lesions.

The helium-neon laser is a low-output laser system that emits 632 nm red laser light. The laser is in common use at supermarket checkout counters, in laser pointers and as an aiming beam for invisible lasers (e.g., the carbon dioxide laser). The laser also has been used experimentally in the biostimulation of healing wounds. Research in this area continues.

Laser safety

Appropriate safety measures for all lasers include a "laser in use" sign on the door, internally controlled door locks and eye protec-

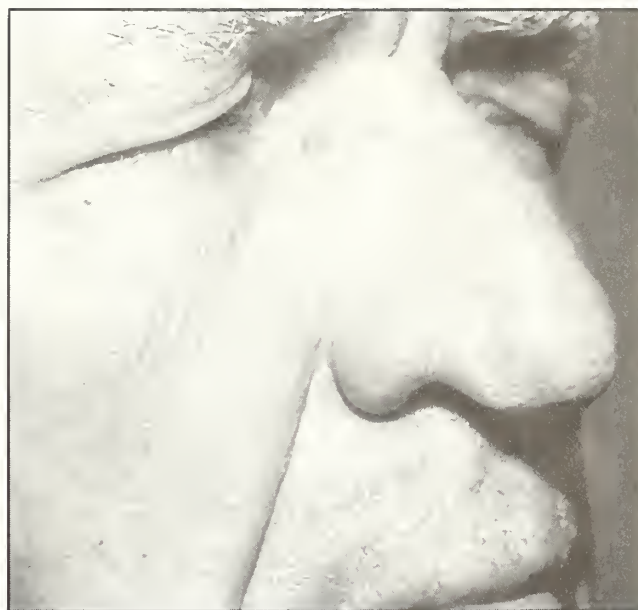


Figure 11:
The laser wound has healed with an improved nasal contour six weeks later.

tion designed for the specific laser being used. All lasers have a "standby switch" so the laser can be disarmed when it is not in active use at the operative site. If this procedure is followed, laser exposure to unintended areas will not occur if the footswitch is inadvertently depressed. The laser aperture clearly is labeled on all lasers. Therefore, no one has a reason to risk eye damage by looking directly into the aperture.

A non-reflective coating on surgical instruments will prevent reflection of the laser beam out of the operative field. Similarly, reflective jewelry should not be worn by laser operative personnel or patients.

For all lasers, all operative personnel should wear laser protective goggles or glasses. The spectral transmission of the goggles is specific for the type of laser being used. In other words, protective eyewear for one type of laser does not provide protection when a different type of laser is used. Conscious patients can wear the same protective eyewear as the laser personnel. If the per-

orbital areas are being treated or if the patient is under general anesthesia, the eyes must be covered with laser-opaque materials. Lead or stainless steel eyeshields are inserted before performing laser surgery on the eyelids.

Carbon dioxide laser – Clear plastic laser safety glasses or regular prescription eyeglasses provide adequate eye protection for the carbon dioxide laser. Laser safety glasses are preferred because of the added shield over the temples and eyebrows. Contact lenses and half-glasses do not provide eye protection.

The carbon dioxide laser can ignite dry surgical drapes or other combustible materials. Cloth and paper surgical drapes that surround the operative field should be saturated with water or saline.

If surgical prep solutions are used, they must be given time to dry before starting the laser procedure. Chemical irritation of skin and eyes can result from laser vaporization of wet prep solutions.

The noxious "laser plume" should not be inhaled and should

be evacuated immediately from the operative field using a high-capacity smoke evacuator.

Argon laser – Orange argon laser safety glasses or goggles should be worn by all operating room laser personnel. A conscious patient may wear the same safety goggles, or the eyes may be taped shut under heavy wet cotton eyepads.

Pulsed dye laser – Protective goggles that specifically filter 585 nm yellow light should be worn by the operating room personnel and conscious patients when the pulsed dye laser is used.

Additional new laser systems will become part of many areas of medicine as our understanding of laser-tissue interaction increases. Recently developed laser systems, such as the pulsed dye laser, have improved the quality of life for many patients with dermatologic disorders. New research in dermatologic laser surgery will pro-

vide further advances in patient care. □

The author is professor of dermatology, pathology and otolaryngology at the Indiana University School of Medicine in Indianapolis.

Correspondence and reprints: C. William Hanke, M.D., Indiana University Medical Center, Dermatology - Regenstrief 524, Indianapolis, IN 46202.

References

1. Geronemus RG, Garden JM: Dermatologic laser surgery. *J Dermatol Surg Oncol*, 16:156-168, 1990.
2. Tan OT, Sherwood K, Gilchrist BA: Treatment of children with port-wine stains using the flashlamp-pumped tunable dye laser. *N Engl J Med*, 320:416-421, 1989.
3. Ratz JL, Goldman L, Bauman WE: Post treatment complications of the argon laser. *Arch Dermatol*, 121:714, 1985.
4. Schreiber A, Wheeland RG: Argon-pumped tunable dye laser therapy for facial port-wine stain hemangiomas in

adults – a new technique using small spot size and minimal power. *J Dermatol Surg Oncol*, 15:277-289, 1989.

5. Goldman MP, Bennett RG: Treatment of telangiectasia: A review. *J Am Acad Dermatol*, 17:167-182, 1987.

6. David CM: Vermilion obliteration for actinic cheilitis. *J Dermatol Surg Oncol*, 11:605-608, 1985.

7. Wheeland RG, Bailin PL, Ratz JL: Combined carbon dioxide laser excision and vaporization in the treatment of rhinophyma. *J Dermatol Surg Oncol*, 13:172-177, 1987.

8. Greenbaum SS, Krull EA, Watnick K: Comparison of CO₂ laser and electro-surgery in the treatment of rhinophyma. *J Am Acad Dermatol*, 18:363-368, 1988.

9. Bailin PL, Ratz JL, Levine HL: Removal of tattoos by CO₂ laser. *J Dermatol Surg Oncol*, 6:997-1001, 1980.

10. Ratz JL, Bailin PL, Levine HL: CO₂ laser treatment of port-wine stains: A preliminary report. *J Dermatol Surg Oncol*, 8:1039-1044, 1982.

11. Shapshay SM, David LM, Zeitels S: Neodymium-YAG laser photocoagulation of hemangiomas of the head and neck. *Laryngoscope*, 97:323-330, 1987.

12. Reid WH, et al: Q-switched ruby laser treatment of black tattoos. *Br J Plast Surg*, 36:455-459, 1983.

Join a medical team that Guards your community and state.

As a physician in the Army National Guard, you can broaden your medical experience and life experience. You'll start as an officer, enjoying all the privileges and prestige rank can bring. And you can attend professionally approved courses at no cost. Best of all, you'll be helping people in your state and local community. People who really need your special skills. For more information, contact your Army Guard recruiter.

317-232-7953, 521-4140
OR 1-800-792-3493



The Guard is America at its best.

Physician Placement Service

Physicians or residents seeking practice opportunities may list their curriculum vitae with the Physician Placement Service at no charge.

PPS acts as a clearinghouse for communication between physicians and recruiters such as hospitals, clinics and physician groups. Since its establishment in 1987, PPS has assisted many physicians in locating practice situations.

For more information, contact Denise Le Doux, PPS coordinator, Indiana State Medical Association, (317) 925-7545 or 1-800-969-7545.

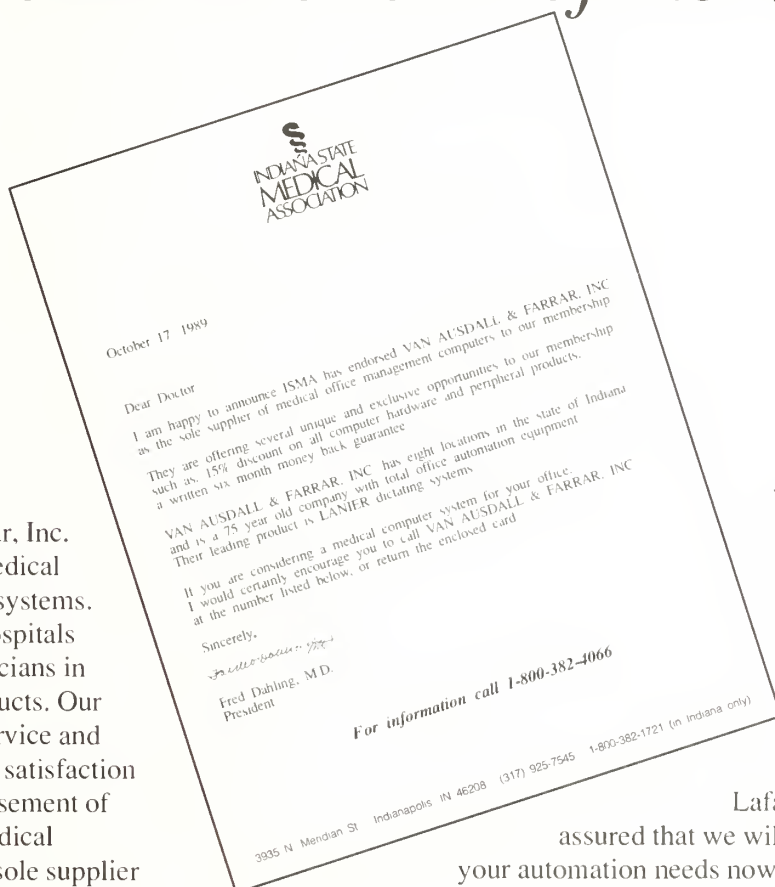
Before You Choose a Practice Management System, Check Out the Choice of the ISMA!

For over 75 years Van Ausdall & Farrar, Inc. has specialized in medical practice automation systems. Today 93% of the hospitals and 80% of all physicians in Indiana use our products. Our reputation for full service and guaranteed customer satisfaction has earned the endorsement of the Indiana State Medical Association as their sole supplier of medical computer systems.

Now Van Ausdall & Farrar has teamed up with Calyx Corporation to provide the total solution to your practice's needs. Calyx's MDX® software is the system of choice for more than 3,600 practices nationwide. MDX goes beyond the usual insurance and accounting functions to streamline procedures, increase efficiency and instantly access all the information you need with just a touch of your finger.



MDX is a registered trademark of Calyx Corporation



With eight offices to serve you in Indianapolis, South Bend, Fort Wayne, Terre Haute, Evansville, Columbus, Muncie and

Lafayette, you can be assured that we will be there to meet your automation needs now and in the future. So, before you choose your system, consider the #1 choice of the ISMA – **Van Ausdall & Farrar, Inc.**

For more information and a FREE video on MDX and hardware that's the right choice for your practice, fill out and mail in the coupon today. Or call us at (317) 634-2913.

Complete and Return for Your Free Video.

Van Ausdall & Farrar, Inc., 1214 North Meridian St.
Indianapolis, IN 46204

Name _____
Practice _____
Address _____
City _____ State _____ ZIP _____
Phone () _____ FAX () _____

VAIM-5

cme quiz

To obtain one hour of Category I CME credit, answer the following questions by circling the correct answer on the answer sheet below. Complete the application form and mail it to: Indiana University School of Medicine, CME Division, BR 156, 1226 W. Michigan St., Indianapolis, IN 46223.

Lasers in dermatology

1. A laser beam is composed of one of the following:
 - a. photons
 - b. electrons
 - c. neutrons
 - d. protons
2. Which one of these is not a property of laser light:
 - a. coherence
 - b. collimation
 - c. beam divergence
 - d. monochromaticity
3. Choose the one incorrect statement about a laser tube:
 - a. it has a totally reflective mirror at one end
 - b. it has a partially reflective mirror at one end
 - c. a paper target is present at one end
 - d. the photons are amplified inside the laser tube
4. The 585 nm pulsed dye laser light is absorbed by which one of these skin elements:
 - a. oxyhemoglobin
 - b. hair follicles
 - c. fat
 - d. sweat glands
5. What is observed on the skin immediately after pulsed dye laser treatment of a port-wine hemangioma:
 - a. a blister
 - b. an ulcer
 - c. a bruise
 - d. a white scar
6. Which laser is most effective for treating port-wine hemangiomas in children:
 - a. pulsed dye
 - b. argon
 - c. carbon dioxide
 - d. helium-neon
7. The carbon dioxide laser has which of the following functions (choose one):
 - a. excision and vaporization
 - b. electrofulguration
 - c. photocoagulation
 - d. sealing of blood vessels larger than 0.5 mm
8. Which one of the following statements is not true regarding laser safety:
 - a. one set of laser safety glasses will protect the eyes from all types of laser light
 - b. a laser should be placed on the "standby mode" to prevent accidental exposures
 - c. clear plastic safety glasses or prescription eyeglasses are adequate eye protection for carbon dioxide laser surgery
 - d. surgical drapes around the carbon dioxide laser operative site should be saturated with water or saline
9. Which lasers can be used for treating port-wine hemangiomas in adults:
 - a. Nd-YAG and carbon dioxide
 - b. helium-neon
 - c. pulsed dye and argon
 - d. ruby
10. Facial telangiectasias can be treated with which laser(s) (choose one answer):
 - a. argon laser and pulsed dye laser
 - b. helium-neon laser
 - c. Nd-YAG laser
 - d. carbon dioxide laser and ruby laser

Answer sheet for CME quiz

I wish to apply for one hour of Category I AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on this answer sheet. I understand my answer sheet will be graded confidentially, at no cost to me, and notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score, but the answers will be published in the next issue of INDIANA MEDICINE.

Name: (please print or type) _____

Address: _____

Identification number: (found above your name on mailing label) _____ Signature: _____

To be eligible for this month's quiz, send your completed, signed application before July 10, 1990, to the address appearing at the top of this page.

Answers (circle one)

1. a b c d
2. a b c d
3. a b c d
4. a b c d
5. a b c d
6. a b c d
7. a b c d
8. a b c d
9. a b c d
10. a b c d



We Moved To Northeast Indianapolis!

**7812 East 96th St.
(I-69 & 96th St.)**

Come see us.

We'd love to help you plan a
cruise or tour or any other
unforgettable vacation.

INTERNATIONAL TOURS AND CRUISES

7812 E. 96th Street (Across from McDonald's)

Fishers, IN 46038

Telephones: Indianapolis – 577-7977

Indiana – 1-800-367-5410

(Endorsed by the Indiana State Medical Association)

Unilateral deformity of the hand

Perry E. Wethington, M.D.
Raymond O. Pierce Jr., M.D.
Indianapolis

A black, male 14-year-old went to an outpatient clinic with a deformity of his left hand (*Figures 1 and 2*). The deformity resulted from an injury sustained 13 years ago and was progressively worsening.

The patient described decreased functioning of the involved areas of the left hand, which had progressed during the past two to three years. He denied recent or chronic recurring trauma, joint pain, heat, swelling or fever. His right hand was not deformed and functioned normally.

Radiographic findings

The radiographs demonstrated the loss of the epiphysis of the distal phalanges of the second through the fifth left digits with subsequent angulation deformities at the distal interphalangeal joints (*Figures 1 and 2*). The epiphysis of the second middle phalanx also was absent. Widening and flattening of the distal middle phalanges of the involved digits was present as well.

The shortening of the second through fifth distal phalanges and second middle phalanx resulted from the injury, secondary to premature fusion of the physes. Most importantly, the left thumb and the right hand both were normal.

Differential diagnosis

The differential diagnosis of the radiological findings included frostbite injury, thermal or electrical burns, osteoarthritis (see discussion), mixed connective tissue disease and Thiemann's disease. Thiemann's disease is a rarely encountered process that leads to proximal interphalangeal joint deformity secondary to idiopathic ischemic necrosis of this joint.

Important differential findings in this case included unilateral involvement and thumb sparing. Unilateral involvement excluded a systemic process, such as a mixed connective tissue disease such as scleroderma, which is uncommon in this age group. Thumb sparing and the above findings are com-



Figure 1



Figure 2

mon and characteristic in frostbite injury. This phenomenon is secondary to the thumb as being held inside a clenched fist when the injury was sustained. This position therefore insulates the thumb from the freezing process.

Discussion

Frostbite injury occurs when tissues are exposed to air below 8° F or -13° C. Frostbite injury of the hand leads to distal phalangeal involvement initially, with progression proximally as the exposure time is prolonged. The radiological changes result from a combination of direct and indirect mechanisms of injury that lead to tissue necrosis. Direct injury is due to tissue freezing while indirect injury results from interruption of the vascular supply and subsequent cartilage ischemia and necrosis.

Early radiological findings of a frostbite injury may reveal a normal radiograph. With further injury, soft tissue swelling, distal soft tissue loss (acrolysis), osteoporosis and periostitis may be seen.

Frostbite injury leads to late

radiological findings (approximately six months after injury) including epiphyseal abnormalities most commonly but also features that may simulate osteoarthritis of the interphalangeal joints. Epiphyseal changes are seen primarily in the distal phalanx but may be observed in the middle and proximal phalanges and rarely in the metacarpals.

The epiphyseal abnormalities include fragmentation, destruction and disappearance of the epiphyseal ossification centers. These changes in a child lead to premature epiphyseal fusion and subsequent brachydactyly and angulation deformity. Indirect and direct injury of the articular cartilage can lead to findings simulating osteoarthritis most commonly seen in the proximal interphalangeal joint. These changes include joint space narrowing, subchondral sclerosis, osteophytes and subchondral cyst formation.

Other radiographic changes resulting indirectly from frostbite injury may be observed in addition to the above mentioned findings. Because of tissue ischemia and necrosis resulting from a

frostbite injury, cellulitis or osteomyelitis may be superimposed on the initial injury. Additionally, postoperative changes resulting from treatment may be observed.

Further history on this patient revealed that he had frostbite of the left hand when he was 1 year old. Currently, no treatment for his deformity is planned. □

Dr. Wethington is a radiology resident, and Dr. Pierce is a professor of orthopaedic surgery at the Indiana University Medical Center.

Section editor: Robert D. Tarver, M.D., Indiana University Medical Center, Department of Radiology, Wishard Memorial Hospital, Indianapolis.

References

1. Resnick D, Niwayama G: *Diagnosis of Bone and Joint Disorders*. 2nd ed. Philadelphia, Pa: W.B. Saunders Publishing Co.; 1988.
2. Edeiken J: *Roentgen Diagnosis of Diseases of Bone*. 3rd ed. Vol 1. Baltimore, Md: Williams & Wilkins Publishing Co.; 1981.
3. Rockwood CA Jr, Wilkins KE, King RE: *Fractures in Children*. Vol 1. Philadelphia, Pa: J.B. Lippincott Publishing Co.; 1984.

Dupuytren's disease

James W. Strickland M.D.
Richard S. Idler M.D.
James C. Creighton M.D.
Indianapolis

The Baron Guillaume Dupuytren of France was the first person to provide a thorough discussion of the etiology, anatomy and treatment of the affliction of the palmar fascia, which produces nodules and cords in the palm and digits and flexion deformities of the finger joints. Although the condition has been referred to as Dupuytren's contracture, it may occur without concomitant finger deformity; therefore, the term Dupuytren's disease is more appropriate.

Etiology

Dupuytren's disease is a condition without any obvious etiology. Apparently, a genetic predisposition must exist, and the disease then is triggered by systemic or mechanical factors. The rate of progression of the process is extremely variable and may be influenced by age, collagen metabolism, neurovascular factors, the use of the hand and the patient's psychological make-up. Other factors that have been implicated include chronic debilitating, systemic disorders such as diabetes, tuberculosis, epilepsy or cirrhosis. Chronic pulmonary disease, gout and aging connective tissue diseases (bursitis, arthritis, tendinitis, etc.) may contribute to the development of Dupuytren's disease. Vascular abnormalities also have

been implicated, and a small incidence of the malady has been reported in patients with rheumatoid arthritis.

The disease may occur after a single injury, and palmar nodules are not infrequent after Colles' fracture, routine hand surgery or other upper extremity injuries. These nodules, however, rarely progress to digital contractures. The relationship between Dupuytren's contracture and heavy manual labor has long been questioned. Work may be a triggering factor for the genetically predisposed individual and may accelerate the progression of the disease, but that it is not, by itself, a frequent inciting event.

Pathology

Students of Dupuytren's disease historically debate whether the condition results from pathologic changes in pre-existing normal fascia or arises "de novo" in the subdermal tissues and attaches to and grows on the underlying fascial bands. The gross appearance of the process is that of a diffuse nodular thickening of the deep fascia of the palm and fingers. Microscopically, the tissue varies from a low-grade inflammatory and proliferative reaction of the fibrous tissue with round cell infiltration and hemosiderin deposits to mature dense fibrous connective tissue with linear orientation of cells and fibers. The diseased fascia has increased amounts of glycosaminoglycans and type III collagen, and a specific cell, the myofibroblast, may

be a causative factor.

Incidence

The incidence of Dupuytren's disease appears to vary widely in different parts of the world. It is commonly found in all northern European countries, Scandinavia and Russia. The condition is uncommon in Japan and very rare in China. It is extremely rare in blacks and other groups prone to keloid formation, suggesting that differences in collagen metabolism among racial groups may be a factor in the development of the condition. There is a strong fa-

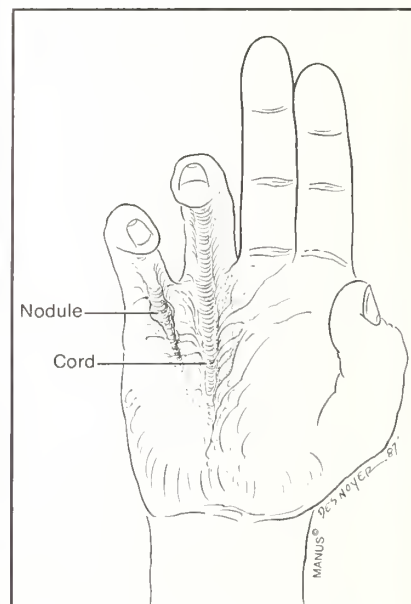


Figure 1: Palmar nodule and cords in a hand with Dupuytren's contracture. Flexion deformities of the digital joints occur when cords pass beneath the joints and contract.

miliar tendency to develop Dupuytren's disease, and some propos that the condition is resultant of a single dominant gene.

Clinical characteristics

The condition usually first appears between the fourth and sixth decades and affects men about six times more frequently than women. Bilateral involvement occurs in roughly 65% of patients with Dupuytren's disease, and involvement of anatomic sites other than the palmar side of the hand (knuckle pads over the proximal interphalangeal joints, the plantar fascia of the foot and the penis as Peyronie's disease) may exist in about 25%.

It often begins as a small, painless distal palmar nodule just proximal to the ring finger (Figure 1). Following the appearance of one or more nodules, the disease will have a highly unpredictable clinical course that has been characterized as a stop-and-go process with alternating periods of progression and rest. In some instances, there may be no progression beyond the nodule stage. Others may progress slowly with periods of temporary arrest, and some may progress rapidly to digital contracture.

As the pathologic fascia forms in the digits, flexion deformities develop because of the tethering effect, which it exerts on the overlying joints (Figure 1). Various combinations of joint deformities may occur, including contractures of the metacarpophalangeal joints, proximal interphalangeal joints or both. The ring and small fingers are the most commonly involved, and distal interphalangeal joint involvement is rare. Because the condition does not involve the

flexor tendons, the ability to fully flex the digits is not impaired.

As the condition develops, pathologic nodules or cords occasionally may be painful, but this discomfort usually subsides. Because the process involves an infiltration of the dermis, localized areas of skin depression or pits may occur (Figure 2) and, in combination with the palmar prominences produced by the bulk of the underlying diseased fascia, the distal palm may become very convoluted.

Treatment

No non-surgical treatment has been effective in the management of Dupuytren's disease. Numerous surgical procedures have been designed to arrest, ablate or palliate the disease; none of the procedures are universally applicable to patients with this condition.

For the most part, surgery should be withheld until the patient is developing contractures sufficient to impair hand function. A painful or annoying palmar nodule is rarely an indication for surgery because the potential complications of the procedure outweigh the "nuisance value" of the lesion. At about 30°, a flexion contracture of the metacarpophalangeal joint will begin to bother many patients and may be an indication for surgery, with a near full recovery of extension expected from fasciectomy. Proximal interphalangeal joint contractures are much more difficult to correct and maintain; therefore, these deformities should be surgically managed even before they reach 30°.

Surgical procedures for this condition range from simple, palliative subcutaneous fasciotomy to complete excision of the diseased

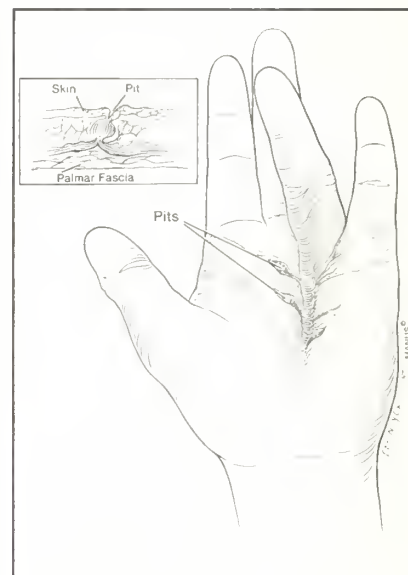


Figure 2: Palmar indentations or "pits" result from contraction of the fibers that intimately connect the diseased fascia and the skin.

fascia, a procedure of considerable magnitude, particularly when contractures are multiple or advanced. □

This is another in a series of monthly articles on hand conditions from the Indiana Center for Surgery and Rehabilitation of the Hand and Upper Extremity in Indianapolis.

Correspondence and reprints: James W. Strickland, M.D., Hand Surgery Associates, P.O. Box 80434, Indianapolis, IN 46280-0434.

References

1. Dupuytren, G: *Lecons Orales de Clinique de Chirurgicale*, G. Balliere, vol. 1, Paris, 1832.
2. Dupuytren, G: Permanent retraction of the fingers produced by an affection of the palmar fascia. *Lancet*, 2:222-225, 1934.
3. Hueston, JT, Tubiana, R (editors): *Dupuytren's Disease*, 2nd English edition, Churchill Livingstone, 1985.

Thrombolytic therapy in acute coronary thrombosis

Georges R. Ramalanjaona, M.D.
John C. Mathew, M.D.

Acute reperfusion of severely ischemic or infarcting myocardium began nearly 35 years ago. Many of the studies using various thrombolytic agents have been performed at major medical centers where complicated monitoring equipment and cardiac catheterization laboratories are available.

Recently, intravenous streptokinase (IV STK) was reported to be safely and effectively administered during evolving acute myocardial infarction in midwestern community hospitals where cardiac catheterization laboratories were not available.¹

Ganz et al² has indicated that IV STK is easily infused, safe, effective and practical and could be used on a large scale in many community hospitals. However, recent articles describe newer drugs, such as intravenous tissue plasminogen activator (IV TPA), as an alternative form of thrombolytic therapy. This article describes our experience with either agent during a two-year period and compares various factors such as clinical reperfusion, mortality, morbidity and long-term functional disability and cost at a community hospital in Indiana.

Patients studied

Nineteen consecutive patients, 14

men and five women, ages 42 to 80 years, with signs and symptoms of acute myocardial infarction (MI) were given either IV STK (Hoechst-Roussel Pharmaceuticals Inc., Somerville, N.J.) or IV TPA (Genentech Inc., Calif.)

Criteria for inclusion in this study included: symptoms of less than six hours, preferably less than four hours before administration of thrombolytic therapy; chest pain lasting more than 30 minutes and unresponsive to nitroglycerin (NTG); at least 1 mm of ST segment elevation in two or more precordial leads for anterior in-

Abstract

Thrombolytic agents administered intravenously have been shown to have a salutary effect in the early management of acute myocardial infarction. However, a debate still is pending over the definite choice of an ideal thrombolytic agent. In our 83-bed community hospital, from January 1986 to September 1988, we treated 19 patients (n=19) with acute myocardial infarction (average one patient every six weeks) with either intravenous streptokinase (IV STK) or intravenous tissue plasminogen (IV TPA) with a mean follow-up of 20.2 months. We compared both groups in terms of clinical reperfusion, morbidity and mortality, cost-effectiveness and long-term functional disability. Our results showed that most patients received their respective agents within four hours of the onset of chest pain (81% in the STK group, n=11, versus 75% of the TPA group, n=8). In the STK group, 90.9% showed clinical evidence of reperfusion compared to 87.5% in the TPA one, the difference not being statistically significant.

Two patients in the STK group developed a treatable bradycardia, and one showed a junctional rhythm that was corrected. One patient in the TPA subset encountered a reversible ventricular tachycardia. However, we didn't note any bleeding complication in either group.

fraction and at least two or more inferior leads with reciprocal ST depression in symmetrical precordial leads for inferior infarction; and the persistence of ST segment elevation after administration of NTG.

The protocol for IV STK included an infusion of 1 million units in 100 cc of 5% dextrose in water (D₅W) over 15 to 30 minutes via a peripheral vein. Intravenous nitrates, morphine or beta blockers were given at the discretion of the treating physician. Heparin also was started at the time of the STK infusion. Results of therapy

were followed by a complete blood count, fibrinogen and fibrin split products and by cardiac enzymes, partial thromboplastin time and prothrombin time done every six hours.

The protocol for IV TPA administration was a 10 mg IV TPA bolus, followed by 50 mg IV during the first hour, then infused at 20 mg/hour for two hours to a total of 100 mg/three hours. In addition, we administered Heparin in 5,000 unit IV bolus, then 500-1,000 U/hour to maintain partial thromboplastin time at two times the control.

Also, we gave lidocaine prophylactically for dysrhythmias, started with 70 mg IV bolus, then 50 mg more in 10 minutes, continued with 2 mg/minute infusion. A NTG drip of 50 mg in 250 cc of D₅W was started at 5 mcg/minute and titrated for chest pain complaint, but blood pressure was maintained at least 90 systolic.

If a patient clinically reinfarcted, IV TPA can be given in half the original dose if signs happen in less than 12 hours and can be given in full original dose if symptoms occur after 12 hours. For IV STK, a repeat course of IV STK can be infused following the original guideline.

The presence of angina and functional class are determined by the New York Heart Association (NYHA). Evidence of clinical reperfusion was determined by the improvement in clinical signs, loss of chest pain and the lowering of ST segments.²

Results

From January 1986 to September 1988, all of these patients were transported by emergency medical services and reached the emergency department within 45 min-

utes of the initial call. Eleven patients were administered IV STK and eight patients IV TPA. Eighty-one percent of these 11 patients received IV STK within four hours of onset of symptoms, and 75% of the eight patients had IV TPA in less than four hours. Eight people (72.7%) in the STK group were diagnosed as inferior wall, and all the IV TPA group were recorded as anterior infarction. Only three patients in the STK group had a history of previous MI, compared to none in the IV TPA group.

Seven of eight patients (87.4%) in the IV TPA group and 10 of 11 people (90.9%) in the STK group showed clinical evidence of reperfusion.

Eighteen patients were transferred and studied with coronary angiography an average of four days post-infarction in both groups. There was no hospital mortality in either group and only one late death in the IV TPA group, at three months due to metastatic cancer. No reinfarction was detected.

Two patients in the IV STK group developed bradycardia and resolved it, and one patient showed a junctional rhythm that also was corrected. On the other hand, one patient in the IV TPA group had ventricular tachycardia that was successfully reversed. We did not encounter any bleeding complication.

The average length of hospital stay was 48 hours in the IV STK group versus 26 hours in the IV TPA group, and the average cost of therapy per patient was \$914 and \$2,715 respectively. A similarly low percentage of patients in either group received only medical therapy.

In a follow-up ranging from

one to 24 months (mean 20.2 months), 90% of the surviving patients are Class I or Class II NYHA functional in the IV STK group, and 87.5% percent in the IV TPA group and 72.7% of the IV STK patients returned to work. Fifty percent of the IV TPA group were back at work.

Discussion

The purpose of our study was to report the use of acute thrombolytic therapy in a small community hospital and compare the results using IV STK or IV TPA. Limitations of the study included the small number of patients studied, the lack of coronary information before thrombolytic therapy and the duration of the study and differences in numbers of anterior versus inferior MIs. The important features of this study are the type of community hospital, with a clinical experience of two years and nine months, and the relatively long-term follow-up (average 20.2 months) of the patients.

Futhermore, subsequent corrective surgical treatment indirectly indicated there was more extensive disease in the IV STK group (coronary bypass in 54.5%) than clinically suggested.

Both groups of patients with clinical reperfusion, 90.9% in the IV STK group and 87.5% in the IV TPA group, were classified as functionally Class I and Class II in the NYHA after a 20.2 month follow-up.

Amid some recent but controversial reports⁵ that IV TPA produces higher coronary reperfusion rate than IV STK, other authors have shown that the differences between these two agents were not significant when patients were treated within three to four hours of onset of chest pain,^{3,4} an obser-

vation that is confirmed by our study. Furthermore, any difference in the reperfusion rate was mitigated by an even higher percentage of coronary re-occlusion.^{6,7} In fact, in our experiment, IV TPA did not offer any real advantage over IV STK in terms of clinical reperfusion, morbidity and mortality and even functional status at 20.2 months follow-up.

In our study, we did not encounter any in-hospital mortality or any bleeding complications in either group that was significantly different from what others have reported.^{1,8} The cost of thrombolytic agents is always an important issue in a community hospital, and initial price and insurance reimbursement affect the overall cost of caring for heart attack patients. In our study the average cost of IV TPA is three times more expensive than IV STK.

In conclusion, we successfully used either IV STK or IV TPA with minimal complications in a

community hospital during a period of more than two years. Our final decision to use only a specific thrombolytic agent now or in the future will depend on the drug's efficacy, safety, ease of administration and cost efficiency. Achievement of full clinical benefit will require cooperation and education of local physicians, training of nurses and design of community programs to decrease the transport time to the hospital. □

The authors are affiliated with Huntington Memorial Hospital.

Correspondence: John C. Mathew, M.D., Huntington Memorial Hospital, 1215 Etna Ave., Huntington, IN 46750.

References

1. Hartman JR, McKeever LM, Bufalino VB, Amirparviz F, Scanlon PJ: Intravenous streptokinase in acute myocardial infarction: Experience of community hospitals served by paramedics. *Am Heart J*, 111:1030-1034, 1986.
2. Ganz W, Geft I, Maddahi J, Ber- man D, Charvzi Y, Shah PK, Swan HJ: Non-surgical reperfusion in evolving myocardial infarction. *J Am Coll Cardiol*, 1:1247, 1983.
3. TIMI study group. The thromboly- sis in myocardial (TIMI) trial: Phase I findings. *N Engl J Med*, 312:932-936, 1985.
4. Verstraete M, Bernard R, Bory M, et al: Randomized trial of intravenous recombinant tissue-type plasminogen activator versus intravenous streptokinase acute myocardial infarction. *Lancet*, i:842-847, 1985.
5. Sherry S: Recombinant tissue plasminogen activator: Is it the throm- bolytic agent of choice for an evolving acute myocardial infarction? *Am J Cardiol*, 59:948-949, 1987.
6. Marder VJ, Sherry S: Thrombolytic therapy, current status (second of two parts). *N Engl J Med*, 318:1585-1595, 1988.
7. Topol EJ, Califf RM, et al: A ran- domized trial of immediate versus de- layed elective angioplasty after intrave- nous tissue plasminogen activator in acute myocardial infarction. *N Engl J Med*, 317:581-588, 1987.
8. Guerci AD, Gerstenblith G, et al: A randomized trial of intravenous tissue plasminogen activator for acute myocar- dial infarction with subsequent randomi- zation to elective coronary angioplasty. *N Engl J Med*, 317:1613-1618, 1987.

■ drug names

Look-alike and sound-alike drug names

	HMS	RMS
Category:	Corticosteroid (ophthalmic)	Narcotic agonist analgesic
Brand name:	HMS Liquifilm, Allergan	RMS, Upsher-Smith
Generic name:	Medrysone	Morphine sulfate
Dosage forms:	Ophthalmic susp.	Rectal suppositories
	ANSAID	AXSAIN
Category:	Nonsteroidal anti-inflammatory	Neuralgia
Brand name:	Ansaid, Upjohn	Axsain, Galen Pharmaceuticals
Generic name:	Flurbiprofen	Capsaicin
Dosage forms:	Tablets	Cream

Benjamin Teplitzky, R. Ph.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions.

Such misunderstandings can result in the administration of a drug not intended by the pre- scriber. Awareness of such look- alike and sound-alike drug names can reduce potential errors. □

PUT YOUR MEDICAL CAREER IN FLIGHT.

Discover the thrill of flying, the end of office overhead and the enjoyment of a general practice as an Air Force flight surgeon. Talk to an Air Force medical program manager about the tremendous benefits of being an Air Force medical officer:

- Quality lifestyle, quality practice
- 30 days vacation with pay per year
- Support of skilled professionals
- Non-contributing retirement plan if qualified

Discover how to take flight as an Air Force flight surgeon. Talk to the Air Force medical team today. Call

**USAF HEALTH
PROFESSIONS
317-848-5830
COLLECT**



Cardiac rupture following acute myocardial infarction:

A case with successful surgical treatment

Tony K. Nasser, M.D.
William K. Nasser, M.D.
John D. Slack, M.D.
Cass A. Pinkerton, M.D.
Michael L. Smith, M.D.
James H. Adlam, M.D.
Rodger P. Pinto, Ph.D.
Paul Bergfelder, M.D.

Cardiac rupture is the second most common cause of death following acute myocardial infarction, occurring in approximately 10% to 15% of patients who succumb in coronary care units annually.^{1-6,17} As many as 25,000 people have a fatal cardiac rupture annually.^{3,17} Despite the prevalence of cardiac rupture, its management is usually ineffective. Approximately 50 successful surgical cases have been reported in English-language literature.^{1,2,6-19}

This article details a case of cardiac rupture complicating acute myocardial infarction and identifies the factors important in permitting this patient's survival. Emphasis is given to early clinical suspicion, techniques for stabilization and rapid diagnosis of cardiac rupture and factors that permitted successful surgical repair.

Case report

A 57-year-old white man was

Abstract

This report involves a patient who sustained an acute lateral wall myocardial infarction complicated by cardiogenic shock. Cardiac catheterization revealed diastolic equilibration of all intracardiac pressures. Cardiac angiography revealed only acute occlusion of a small branch of the left circumflex coronary artery with good left ventricular systolic function. Since these findings could not explain the degree of cardiogenic shock, an immediate echocardiogram revealed a moderate pericardial effusion with an echo-dense mass suggestive of subacute cardiac rupture. Emergency cardiac surgery confirmed the diagnosis and successful surgical correction resulted in survival of the patient.

admitted to an outlying community hospital with non-transmural myocardial infarction Nov. 1, 1988. The creatinine kinase rose to 1,700 units with positive MB fractions (normal: 37-289 IV/mL) but no Q-waves appeared on serial electrocardiograms. He initially stabilized on intravenous nitroglycerin but developed severe substernal chest discomfort associated with marked hypotension and syncope Nov. 3.

Intravenous fluids and dopamine were initiated, increasing the systolic blood pressure to 80 mmHg. The chest pain and clinical signs of shock persisted, and he was transferred via helicopter to St. Vincent Hospital and Health Care Center, accompanied

by his physician for further diagnosis and treatment.

Physical examination on arrival revealed a systolic blood pressure of 80 mmHg by palpation. His heart rate was 110. The jugular venous pulse was not distended. Auscultation of the chest revealed a few scattered rhonchi but no definite rales. Cardiac examination revealed no murmurs or audible gallops. Peripheral pulses were of low volume. The remainder of the physical examination was unremarkable.

His electrocardiogram revealed sinus tachycardia with a heart rate of 120 and evidence of a transmural lateral wall myocardial infarction. The patient was taken directly from the emergency de-

partment to the cardiac catheterization laboratory where emergency catheterization with selective coronary cineangiograms was performed. An intra-aortic balloon pump was placed to stabilize the blood pressure before catheterization.

Pressures on the right side of the heart revealed diastolic equilibration of right atrial, right ventricular, pulmonary artery and capillary wedge pressures at 15 mmHg. Left ventriculography performed in the right and left anterior oblique views revealed good left ventricular function with a small area of lateral hypokinesis. No staining in the pericardium was noted.

Coronary arteriography revealed total occlusion of the proximal obtuse marginal branch of the circumflex coronary artery. No significant obstruction was noted in the three major coronary arteries. Branch stenosis of the obtuse marginal coronary artery with associated small lateral wall infarction could not account for this degree of hypotension and cardiogenic shock.

The tamponade physiology evident on records of right-sided intracardiac pressures prompted an emergency echocardiogram to be performed in the catheterization laboratory. This procedure revealed a moderate pericardial effusion with dense echoes along the lateral left ventricular wall, strongly suggesting a clot sealing a perforation in the myocardium (*Figure*). The presumptive diagnosis of subacute cardiac rupture following acute myocardial infarction was made, and the patient was transferred immediately to the operating room for emergency surgical repair.

After the median sternotomy,

the pericardial sac was observed to be distended and tense. The pericardium was incised, and blood was aspirated, resulting in restoration of the patient's cardiac rhythm and blood pressure to acceptable limits. The site of myocardial rupture along the posterolateral wall was identified and repaired with a Teflon patch. The immediate postoperative period was complicated only by a spontaneous pneumothorax treated initially with tube thoracostomy followed by surgical closure of the leak two weeks later. He was discharged from the hospital Nov. 23. Six months later, he returned to work and is doing well.

Discussion

Cardiac rupture usually occurs between the first and seventh day following myocardial infarction.⁶

It may be classified into three types. First, there is acute rupture, resulting in hemopericardium with acute tamponade, which rapidly progresses to death and leaves no time for treatment. Second, there is subacute rupture with slow or intermittent bleeding through infarcted myocardium into the pericardial sac, causing recurrent chest pain and apparent cardiogenic shock.^{13,17} Subacute rupture, as seen in this case, is a condition that can be diagnosed during life and is amenable to emergency surgical repair. Third, there is rupture with formation of a false aneurysm.⁷ This latter situation usually is marked by persistent symptoms of congestive heart failure in months after the acute myocardial infarction. It may be recognized by the distinctive small neck leading into a left ventricle aneurysm on echocardi-

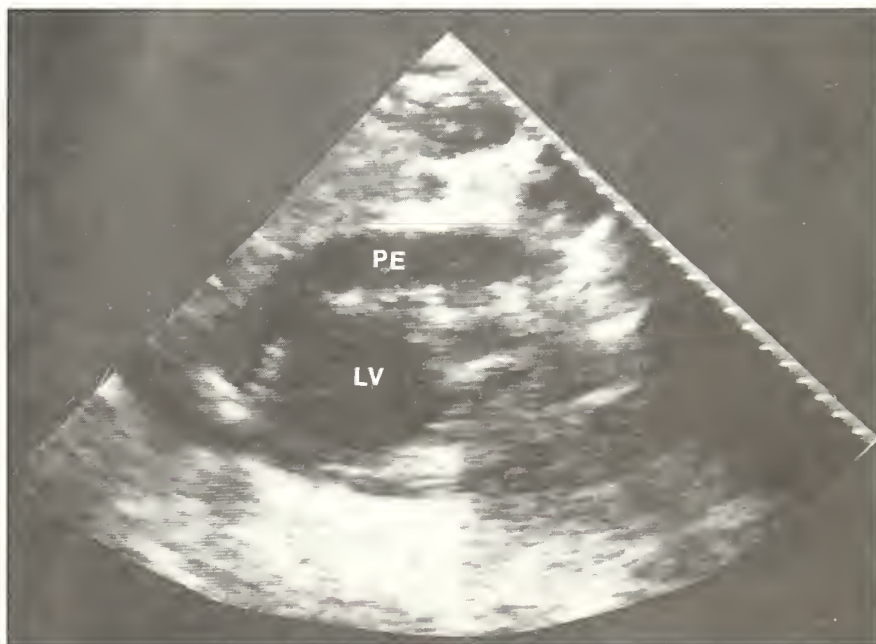


Figure: Modified apical two-chamber view showing a moderate pericardial effusion surrounding the left ventricle.

ography or ventriculography. Surgical repair of a false aneurysm is associated with excellent results in most cases.

Clinical signs and symptoms of cardiac rupture during recovery from myocardial infarction include chest pain, narrowed pulse pressure, sudden onset of hypotension, jugular venous distention and muffled heart sounds.^{2,13} The electrocardiogram often will show sinus bradycardia followed by junctional rhythm or the presence of electromechanical dissociation.¹⁵ The clinical diagnosis of subacute cardiac rupture is usually confirmed by echocardiographic demonstration of fluid in the pericardial cavity.^{2,20} Subsequent pericardiocentesis may improve the clinical status; however, if the patient is reasonably stable, it is not necessary to attempt pericardiocentesis because of the potential dangers of coronary artery or ventricular laceration and possible inability to aspirate an organized thrombus.^{5,16}

Reversal of any anticoagulant is mandatory. Cardiac output may be improved temporarily by inotropic agents while preparing for cardiac catheterization and surgery.² Unfortunately, the interval between rupture and death is usually very short, and these procedures often are not possible. In the case of acute rupture, death occurs within minutes; therefore, these patients are unsuitable for surgery.²

In the patient with subacute rupture, emergency coronary angiography and ventriculography are necessary to assess left ventricular function and associated coronary artery disease and must be performed with the surgical team on standby as soon as the patient's condition permits.²

Proceeding directly to surgery to repair the myocardial bleeding site without knowledge of concomitant multivessel or valvular damage is high-risk intervention and not recommended, except in the most extraordinary salvage situation.

Successful management of subacute cardiac rupture is possible and includes: 1) high suspicion of cardiac rupture; 2) hemodynamic stabilization with fluids, pressors, intra-aortic balloon pump and possibly pericardiocentesis; 3) confirmation of the diagnosis with echocardiography; 4) cardiac catheterization to define presence and extent of concomitant valvular and/or coronary disease; and 5) surgical repair of rupture with combined coronary arterial bypass grafts. □

Addendum: The patient continues to do well without cardiac symptoms 18 months after surgery.

From the Indiana Heart Institute at St. Vincent Hospital and Health Care Center in Indianapolis and Reid Memorial Hospital in Richmond, Ind.

Correspondence and reprints: W.K. Nasser, M.D., Nasser, Smith & Pinkerton Cardiology, Inc., 8402 Harcourt Road, Suite 400, Indianapolis, IN 46260.

The authors thank Ed Fitzgerald, M.D., for his valuable surgical assistance in the care of this patient.

References

1. Parr GVS, Pae WE Jr, Pierce WS, Zelia R: Cardiogenic shock due to ventricular rupture: A surgical approach. *J Thorac Cardiovasc Surg*, 82:889, 1981.
2. Kretz JG, Eisenmann B, Bareiss P,

et al: Acute postinfarction left ventricle rupture. Five operations with three long-term survivals. *J Cardiovasc Surg*, 26:244-247, 1985.

3. Bates RJ, Beutler S, Resnekov L, Anagnostopoulos CE: Cardiac rupture: Challenge in diagnosis and management. *Am J Cardiol*, 40:429-437, 1977.

4. Torp-Pedersen C, Hanen FS, Pedersen A: Relation of left ventricle free wall rupture in acute myocardial infarction to forced immobilization. *Am J Cardiol*, 61:910-912, 1988.

5. Pifare R, Sullivan HJ, Grieco J, et al: Management of left ventricular rupture complicating myocardial infarction. *J Thorac Cardiovasc Surg*, 86:441-443, 1983.

6. Shapira I, Iskov A, Burke M, Almay C: Cardiac rupture in patients with AMI. *Chest*, 92(2):219-223, 1987.

7. Bashour T, Kabbani SS, Ellertson DG, Crew J, Hanna ES: Surgical salvage of heart rupture: Report of two cases and review of the literature. *Ann Thorac Surg*, 36:209-213, 1983.

8. Abel RM, Buckley MJ, Friedlich AL, Austen WG: Survival following free rupture of left ventricular aneurysm: Report of a case. *Ann Thorac Surg*, 21:175, 1976.

9. Anagnostopoulos E, Beutler S, Levett J, et al: Myocardial rupture: Major left ventricular infarct rupture treated by infarctectomy. *JAMA*, 38:2715, 1977.

10. Cobbs BW, Hatcher CR, Robenson PH: Cardiac rupture: Three operations with two long-term survivors. *JAMA*, 223:232, 1973.

11. Fitzgibbon GM, Hooper GD, Heggveit HA: Successful surgical treatment of post-infarction external cardiac rupture. *J Thorac Cardiovasc Surg*, 63:622, 1972.

12. Montegut FJ Jr: Left ventricular rupture secondary to myocardial infarction: Report of survival with surgical repair. *Am Thorac Surg*, 14:75, 1972.

13. O'Rourke MF: Subacute heart rupture following myocardial infarction: Clinical features of a correctable condition. *Lancet*, 2:124, 1973.

14. West PN, Shaw RC, Weldon CS: Posterior ventricular aneurysm, severe mitral regurgitation and rupture of the left ventricle after acute myocardial infarction: Six-year survival after surgical correction. *Ann Thorac Surg*, 25:236, 1978.

15. Balakumaran K, Verbaan CJ, Essed CE, et al: Ventricular free wall rupture: Sudden, subacute, slow sealed and stabilized varieties. *Eur Heart J*, 5:282-288, 1984.

16. Touchstone DA, Kron IL, Van-Dyke WH, Ashby CC, Nygaard TW: Lifesaving procedure for myocardial free wall rupture: Case report. *Virginia Medical*, 113:681-682, 1986.

17. McMullan MH, Kilgore TL Jr, Dear HD Jr, Hindman SH: Sudden blow-out rupture of the myocardium after

infarction: Urgent management. *J Thorac Cardiovasc Surg*, 89:259-263, 1985.

18. Singh RR, Matangi MF: Myocardial rupture following AML. *Can J Cardiol*, 3(6):270-274, 1987.

19. Ennix CL, Ecker RR, Iverson LIG, et al: Early detection and management of left ventricular free wall rupture during

acute myocardial infarction. *Am J Cardiol*, 63:151-152, 1989.

20. Knopf WD, Talley JD, Murphy DA: An echo-dense mass in the pericardial space as a sign of left ventricular free wall rupture during acute myocardial infarction. *Brief Reports*, 1202, 1987.

Three Easy Ways To Improve the Cash Flow of Your Practice

- 1. Eliminate the four to six-week wait for payment from insurance carriers.

We quickly process your patient charges and electronically transmit your claims within two to three working days of their receipt in our office. You usually receive payment within 14 days!

- 2. Streamline your office staff and paperwork.

Our billing service helps you contain overhead costs and keep your energy focused where you want it — on your practice.

- 3. Improve your collections rate.

Our personalized collection letters and telephone follow-up get results.

Physicians Billing Service of Indiana, Inc. is the key to quickly implementing these money-saving measures plus many more. We customize our service to meet all your specific billing and reporting needs!

Call us today for more information. We'll show you how easy it is to make your practice work for you.



Physicians Billing Service of Indiana, Inc.

5435 North Emerson Way • Suite 230 • Indianapolis, Indiana • 46226 • (317) 545-2176, ext. M2

Medical records release:

What every physician should know

Ronald L. Dyer
ISMA General Counsel

The most frequent inquiry the Indiana State Medical Association receives from patients and physicians relates to the release of medical records. For that reason, the following questions and answers have been prepared to assist physicians in understanding state law regarding the release of medical records.

Q. What exactly does a "health record" include?

A. "Health record" is defined as "any written or printed information **possessed** by a provider concerning any diagnosis, treatment or prognosis of the patient."

In the author's opinion, this includes not only records generated by the physician but also records generated by other providers and **possessed** by the physician.

Q. Is a physician legally required to release to the patient all of the patient's records in his **possession**?

A. Upon written request, a provider shall supply to the patient the health records **possessed** by that provider concerning the patient.

Q. Is the physician permitted to charge for providing a copy of the patient's records?

A. The provider is permitted to charge the "actual total cost" in providing a copy of the records. In the author's opinion, this includes the copying cost and a

reasonable fee for staff time involved in processing and copying the records.

In the author's opinion, the provider may request payment in advance, but if the patient cannot pay or insists on the record before paying, the provider should release the records and bill the patient, rather than refuse the request.

Q. If the patient, when requesting copies of his or her records, has an outstanding bill for medical services provided, may the physician require the outstanding bill be paid before the release of medical records to the patient?

A. The Council on Ethical and Judicial Affairs of the American Medical Association says it is unethical for a physician to withhold the release of patient medical records to the patient because of an outstanding bill. The physician has other legal remedies he may pursue in collecting an outstanding bill; however, withholding the release of medical records to the patient is not one of those remedies.

In addition, if the patient suffered injury that could be shown to be directly related to the inability to obtain medical records from the former physician, the former physician could be subject to potential punitive damages in the event of a lawsuit.

Q. What about requests for x-rays? Am I required to release them?

A. Providers are required, at their actual cost, to provide patients access to **or a copy of** their

x-ray film.

Q. Who may request copies of health records?

A. Records may be requested by a competent patient who is at least 18 years old or a patient who is younger than 18 and lives independently from his or her parents. If the patient is incompetent, the request may be made by the parent or guardian of the patient. If the patient is deceased, the records may be requested by the personal representative of the patient's estate, or if there is no personal representative, by the spouse, and if there is no spouse, by a child of the deceased patient.

Q. What is the physician's responsibility in providing health care and/or medical information when the minor patient's parents are divorced?

A. Indiana law provides that, except as otherwise agreed by the parties in writing at the time of the custody order, the custodial parent may determine the child's upbringing, including health care. In the author's opinion, a physician should indicate in the patient's file who the custodial parent is or have a copy of the court-approved settlement agreement that explains which parent has the right to make health care decisions for the child.

Q. What information must a request for release contain to be effective?

A. Requests for health records must contain the name and address of the patient, the name and address of the provider, the person or organization to whom

disclosure is to be made, a statement that the request may be revoked by the patient, the specific information requested, the date of the request and the signature of the patient. The request is valid for 60 days.

Q. What about requests for information from insurance companies that state they have consent from the patient by virtue of the patient's application for insurance benefits?

A. Indiana law does not prohibit an accident and sickness insurance company from obtaining health records with a written consent executed when an application for insurance is received. A written consent obtained at the time of application by an insurance company is valid for two years from the date the contract is issued. A consent obtained at any other time by an insurance company is valid for one year after the date the consent is signed. The statute also provides that a copy of all health records obtained by an insurance company by written consent shall be furnished to the patient upon the written request of the patient.

Consents obtained by an insurance company must contain only the name of the insured, the date the consent is granted, the name of the company to which consent is given to receive information and the general nature of the information requested. The physician should keep a copy of the insurance company's authorization for the office file.

Q. Are there any situations where the provider is allowed to withhold the release of medical information to the patient?

A. A provider who reasonably

determines that the information requested will be detrimental to the physical or mental health of the patient or is likely to cause the patient to harm himself or someone else may withhold the information from the patient.

Q. Who actually owns the patient's medical record?

A. The original health record of the patient is the property of the provider and may be used by the provider without specific written authorization for legitimate business purposes, including submission of claims for payment from third parties, collection of accounts, litigation defense, quality assurance, peer review and scientific, statistical and educational purposes. When used for these purposes, however, the provider shall at all times protect the confidentiality of the record and may disclose the identity of the patient only when it is essential to the provider's business use or to quality assurance and peer review.

Q. Can the provider be required to pay damages for libelous comments in the health records?

A. Providers and their employees, agents or representatives are immune from any civil action for libel arising from information or entries made in a patient's health record, if the information or entries are made in good faith and without malice.

Q. How long is a provider required to maintain the original health records of the patient?

A. The provider is required to maintain the original health records for at least seven years. In addition, a provider who fails

to do so commits an offense that may result in disciplinary sanctions by the Medical Licensing Board of Indiana.

Q. I thought there was a physician-patient privilege that prohibited third parties from obtaining medical information about a patient without the patient's consent. What is that law?

A. Indiana Code 34-1-14-5 refers to the physician-patient privilege and provides that physicians shall not be compelled to be witnesses against their patients nor shall they be questioned about any matter their patients discuss with them in the course of their professional business or advice given in such cases.

Q. If that is so, how can the physician be required to turn over medical records at the request of third parties without the patient's consent?

A. Public policy and fundamental fairness require that whenever a plaintiff places his or her physical condition at issue in a lawsuit, the defendant is entitled to explore evidence of the plaintiff's physical condition and treatment. This policy was stated by the Indiana Supreme Court in *Collins v. Bair*, 268 N.E.2d 95 (1971), which said that when a patient places his or her physical or mental condition at issue by filing a lawsuit, the patient's actions are totally incompatible with the physician-patient privilege and, thereby, the patient must allow the defendant to discover medical information causally and historically related to the alleged injury.

Q. What is the provider required to do when he or she re-

ceives a "Request for Production of Medical Records" with a subpoena? Is the physician required to release the medical records without the patient's consent in the file? Should the physician ignore the request for production and subpoena? Should the physician be required to hire an attorney to advise him or her in these situations? Should the physician be required to contact the patient and await the patient's approval before the release of the information?

A. This situation has long perplexed physicians. Because physicians are aware of the general physician-patient privilege and often do not have authorization from the patient to release patient information, physicians are never certain whether their responsibility is to respect patient confidentiality or to comply with a request for production of records and a subpoena.

In the recent case of *Canfield v. Sandock*, 521 N.E.2d 704 (Ind. App. 1988), the Indiana Court of Appeals gave us some direction in dealing with this dilemma. In this case, the defendant requested the medical records of the plaintiff, and the plaintiff's attorney objected. The Court of Appeals

ruled that the disclosure of a person's medical records in the context of a lawsuit was not a "public" disclosure because the "discovery" process in a lawsuit is not public but merely the exchange of information between the parties to the lawsuit.

In the author's opinion, the *Canfield* case stands for the proposition that whenever a plaintiff claims his medical condition is at issue, the defendant may obtain any and all physicians' records through subpoenas and requests for production directed to the plaintiff's treating physicians. The physician is entitled to rely on the subpoena and "request for production of medical records" as authority to release the records.

Q. What about mental health records? Are they subject to discovery by presenting the treating physician with a request for production of documents and a subpoena?

A. A statutory privilege absolutely prohibits the discovery or admissibility of records generated and maintained by providers of mental health services. Specifically, IC 16-14-1.6-8(f) states that the records of a mental health service provider are not discover-

able or admissible in any legal proceeding without the consent of the patient or client. Because the records cannot be obtained without the consent of the patient, even if the patient has placed his or her mental health at issue in a lawsuit, these records may not be obtainable.

In such a case, an opposing party would be required to file a "Motion to Compel Execution of Consent" or, in the alternative, a "Motion to Limit Evidence." This will force the patient to choose between not proceeding on an issue related to his or her mental health condition or agreeing to the release of the records and, if relevant, to their admissibility. The legal system encourages the courts to entertain such motions in the interest of fairness, but the release of mental health records can be obtained only by consent of the patient. □

(Editor's note: Medical records will be the topic of another article, to be published in the July issue of INDIANA MEDICINE. Because of the number of inquiries the Indiana State Medical Association receives about medical records, the topic deserves additional coverage.)



Complete Care for the Ear

J. William Wright III, M.D.
George W. Hicks, M.D.

8103 Clearvista Parkway
Indianapolis, Indiana 46256
(317) 842-4757
(800) 522-0734

CAPSULE COMMENTS

SWIMMER'S EAR

What is it?	Infection of skin lining ear canal due to bacteria or fungus.
Causes?	Heat, humidity, contaminated water, idiopathic injury.
Symptoms?	Itching, fullness or stuffiness in ear canal, may be discharge, pain, and hearing loss.
Treatment?	Avoid water in ear canal; cleaning of ear; ear drops (cortisporin, otic suspension, tid) antibiotics, analgesics.

For more assistance with your patient's ear needs
contact The Ear Institute of Indiana

• Otolology and Neurotology • Audiology • Vestibular Laboratory • Hearing Aid Dispensing
• Additional location: 5506 East 16th Street, Suite 12

"A HEALTHY ATTITUDE..."

NOW YOU CAN DEVELOP A
HEALTHY ATTITUDE WHILE
DRIVING A NEW CAR, TRUCK OR VAN
FROM TERRE HAUTE AUTOPLEX!



PORSCHE 

CALL
(812) 235-8111
TOLL-FREE
1-800-874-4110

FORMERLY SHANKS

TERRE HAUTE

AutoPlex 

ALSO: TOYOTA • VOLKSWAGEN
AUDI • BMW • BUICK



ON U.S. 41... 1 MILE SOUTH OF I-70... TERRE HAUTE

Terminating the physician-patient relationship

(Editor's note: The following article is provided as a service of Physicians Insurance Company of Indiana.)

When is it risky for a physician to reject a patient? According to the AMA Principles of Medical Ethics, "Physicians are free to choose whom they will serve."

There are, however, exceptions to the rule. Physicians should respond in emergencies where first aid treatment is essential. Once a physician has accepted a patient, the physician should not neglect the patient or withdraw from the case without giving advance notice to the patient, relatives or responsible friends so that another physician may be obtained.

Rejection of a patient is an issue that does not apply in Good Samaritan emergency situations that occur away from the physician's medical office and the hospital. Doctors are covered by law when they aid someone in such situations. The provision of first aid treatment does not commit the physician to an ongoing physician-patient relationship. However, when the physician-patient relationship has been established in the course of medical treatment, physicians should know the proper way to terminate the relationship without risking a lawsuit.

Attracting and retaining patients is a primary goal of all physicians and their office staffs.

Sometimes, however, relationships with patients sour, despite the physicians' best efforts. Patients may become hostile and aggressive. They may not pay their bills or may not follow the physician's instructions.

Can physicians terminate relationships with such patients without risking the threat of a liability suit? Absolutely.

When physicians terminate relationships with patients, they are justifiably concerned about liability for abandonment. One

ments.

When a physician ends a relationship with a patient, the physician should evaluate the likelihood of deterioration of the patient's medical condition. If an unstable medical condition is likely, be cautious.

To defend claims of abandonment, physicians must be sure they can defeat at least one – and preferably all – of the above statements.

When terminating a relationship, do it diplomatically. Suggest that the patient would probably be more comfortable with another doctor. Recommend that the patient contact the local medical society to obtain a list of physicians qualified to meet his or her medical needs. To safeguard yourself, note

***Rejection of a patient
is an issue that does not apply
in Good Samaritan emergency situations
that occur away from the
physician's medical office
and the hospital.***

court defines abandonment as "a failure by the physician to continue to provide service to the patient when it is still needed in a case for which the physician has assumed responsibility and from which he has not been relieved."

Patients who try to prove they were abandoned by a physician must show the following:

1. The physician unilaterally terminated the physician-patient relationship.
2. The relationship was terminated without reasonable notice.
3. The patient needed further clinical care at the time the physician terminated the relationship.

To win a suit, the patient must prove all three of the state-

the termination in the patient's medical record, and send the patient a letter of confirmation by certified mail.

If the patient discharges the physician, that will end the physician-patient relationship. Physicians should protect themselves, however, by sending the patient a letter confirming the break and keeping a copy of the letter on file.

Even the best precautionary measures cannot guarantee that a physician will not be sued. If the guidelines described in this article are followed, however, a physician's chances of being sued for abandonment will be reduced significantly. □

1990 Cardiopulmonary Rehabilitation Symposium

**SEPTEMBER 12-14, 1990
HILTON AT THE CIRCLE
INDIANAPOLIS, INDIANA**

The Indiana Heart Institute at St. Vincent Hospital will present a two day symposium which will focus on critical issues in cardiopulmonary rehabilitation. The symposium will feature nationally renowned guest speakers and workshops, as well as open discussions. Among topics to be presented are:

- *How to set up and run a lipid clinic*
- *Pharmacologic management of hyperlipidemia*
- *Preventive cardiology for the family physician and internist: A strategy for office practice*

For additional information or a brochure, call Donna Syphers at (317) 871-6500 or **(800) 634-3278**.

As an organization accredited for continuing medical education, St. Vincent Hospital and Health Care Center designates that this program meets the criteria for 12 hours credit in Category 1 of the Physicians' Recognition Award of the American Medical Association. This program has been reviewed and is acceptable for 12.25 prescribed hours by the American Academy of Family Physicians.



INDIANA **HEART** INSTITUTE
ST. VINCENT HOSPITAL

NORTHSIDE CARDIOLOGY, P.C.:
STEINMETZ, HILLIS, ROTHBAUM

NASSER, SMITH AND
PINKERTON CARDIOLOGY, INC.

SHUMACKER, ISCH, JOLLY,
FITZGERALD, FESS AND GLASSER,
M.D.'s, INC.

Affiliated Programs:
Saint Joseph Hospital, Kokomo
Community Hospital, Anderson
Home Hospital, Lafayette

ISMA Constitutional Amendment

As required by Article X (Amendments) of the ISMA Constitution, INDIANA MEDICINE is publishing the following ISMA resolution for the second time prior to its being resubmitted and voted on by the 1990 House of Delegates.

The language is contained in Resolution 89-3, Medical Student Representatives on the Board of Trustees, (Amendment to Constitution, Article VII), introduced last year by the Commission on Constitution and Bylaws. The resolution was referred to Reference Committee 2 and subse-

quently was "adopted" by the 1989 House of Delegates. It was published for the first time in the January 1990 issue of INDIANA MEDICINE, page 48. The resolution follows:

Whereas, Resolution 88-17, "Medical Student Society Representatives on the ISMA Board of Trustees," approved by the 1988 House of Delegates, resulted in Bylaws amendments to Section 1.0104, Section 5.01(3), Section 5.0406, Section 5.0407 and Section 12.0402; therefore be it
RESOLVED, that the ISMA

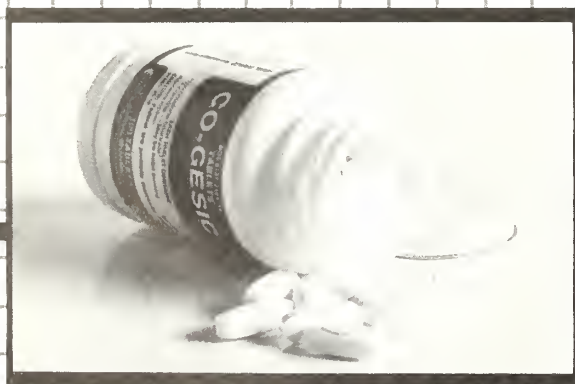
Constitution, Article VII, Board of Trustees, be amended with the following addition:

"The Board of Trustees is composed of Trustees and Alternate Trustees (elected by the component district medical societies, the Resident Medical Society and the Medical Student Society), the President, President-elect, Immediate Past President, Treasurer, Assistant Treasurer, Speaker, Vice Speaker and the Executive Director ..."

Code:
underlined = addition

Co-Gesic[®] III

HYDROCODONE BITARTRATE* and ACETAMINOPHEN TABLETS
5 mg and 500 mg *Warning — May be habit forming



Proven
Dependability

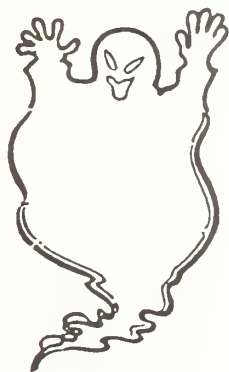


CENTRAL PHARMACEUTICALS, INC.

SEYMOUR, INDIANA 47274 USA

Quality Pharmaceuticals Since 1904

Medical Ghostwriting



- * Newsletters
- * Journal Articles
- * Practice Brochures
- * Script Writing
- * Patient Teaching Materials

Medical Communicators

Kurt Ullman, R.N.
11078 Huntington Ct.
Carmel, IN 46032
(317) 843-2065

OB/GYN STAFF PHYSICIAN

Ambulatory Care

We're seeking a licensed physician specializing in OB/Gyn whose dedication to providing quality health care matches our own. Contributing to a developing OB program, you will work with a small group of physicians at three highly successful, community health centers. You'll provide pre- and post-natal care and delivery, and some GYN surgery to a primarily indigent patient population.

Affiliated with Methodist Hospital—an 1120-bed tertiary care facility and trauma center, and the 13th largest private hospital in the country—these centers are recognized for having one of the best ambulatory quality control programs in the country. The close relationship with Methodist allows you to benefit from the unique research opportunities presented by this program, and a teaching program supported by Methodist Hospital's house staff. In return, we offer an extremely challenging position, malpractice insurance, manageable hours and a complete compensation and benefits package which includes relocation assistance.

We require the ability to deliver quality care with an emphasis on teamwork and constant patient contact. Community health background preferred, but not required.

Our prime Indianapolis location offers you the chance to reside in one of America's most liveable cities, where you'll find professional sports, and a variety of cultural and recreational activities. Find out more about Methodist. For consideration, please send resume to: Amy B. Byrne, Staffing Dept., P.O. Box 1367, Indianapolis, IN 46206. Equal Opportunity Employer.

 **Methodist
Hospital**
OF INDIANA, INC.
The Difference Is Experience.

A review of the Annals of the Royal College of Surgeons

Austin L. Gardner, M.D.
Indianapolis

The January 1990 issue of the *Annals of the Royal College of Surgeons of England* included a landmark presentation by Professor Sir Roy Calne of Cambridge, who was a guest and lecturer at the Liver Transplant Symposium at the Indiana University School of Medicine last year.

His Hunterian Oration in 1989 was titled "The Art and Science of Surgery" and included a varied collection of art and an impressive review of science.

A brief review of John Hunter's life introduced each Hunterian Oration, but Calne had special insight into the life of the father of experimental surgery.

"The introduction of the scientific method of surgery is the supreme Hunterian contribution." His teaching and the inspiration of Edward Jenner led to the eradication of smallpox, and his work with Sir Astley Cooper led to great contributions. Calne described the ligation of the abdominal aorta for a leaking iliac aneu-

rysm in 1817. The case was described in Cooper's words and included diagrams made by the surgeon.

Calne reviewed the history of transplantation, citing artists' depictions of leg transplantation by Saints Damien and Cosmos. He paid respects to the work in Boston of Joseph Murray, M.D., on kidney transplantation in identical twins and expertly reviews the work on immunosuppression. He cited Schwartz and Damashek's work on 6-mercaptopurine on the inhibition of antibodies and his own work on the use of azathioprine, which was the first effective immunosuppressive agent. Calne, after hearing of Schwartz and Damashek's work, immediately realized the significance in relation to renal transplantation. As a young surgeon at Westminster, he experimented in the finest Hunterian tradition and, in a short time, developed the protocol for immunosuppression with azathioprine.

He does not mention his role in the oration, but it was generally known by his audience.

The work of Russell Brock in

persevering in difficult surgery – "the terrible loneliness of the decision to continue with the procedure after a succession of failures" – mirrored the early work in liver transplantation by Calne and Starzyl.

In the 1960s, experimental liver transplantation on pigs in Cambridge and early human experience in Denver led to disappointments. Yet, as many as six liver transplant patients were alive at one time in December 1967. The persistence of these pioneers resulted in the success that is now commonplace.

Calne's oration dealt also with art, including the works of anatomist Charles Bell, surgeon Harold Gillies and artists Goya, Curer and Van Gogh and a series of paintings by a liver transplant patient chronicling his illness and recovery, with the final painting of the patient by Calne, the surgeon.

Calne quoted Hippocrates, "Life is short and the art long, the right time an instant, treatment precarious, and the crisis grievous." □

To: Ms. Smith
 From: Bob
 Subject: HealthCare Center

Never mind the area nursing home list I requested. A neighbor recommended the HealthCare Center at Summer Trace Retirement Communities in Carmel. She gave me some material on the Center including several photographs she took during a visit. It is a totally private pay facility and, therefore, provides more extras in terms of dining, atmosphere, personal amenities, activities and nursing services. Of course, it may be a little more expensive. But, it's worth every penny to know that Mom will maintain the very best quality-of-life possible.

Thanks, Bob



SUMMER TRACE Retirement Communities

HealthCare

A Monthly Publication for the Residents & Friends of the Summer Trace Retirement Communities

October 1989



COMMUNITY EVENTS

What's Cookin'? Who's Cookin'??

A cook out was held recently in honor of the dietary staff on National Food Service Employee Day. Department heads prepared the menu of hot dogs, baked beans, potato salad and brownies. The dietary staff really enjoyed having someone serve them. The food was so good that some of the department heads were offered jobs as cooks in the kitchen!



ADMINISTRATOR

Summer Trace has many outstanding features of which we can be proud. A lot of folks have never heard about us and are interested in discovering our real facility.

Let's all go out and really talk up Summer Trace.

Charlie Lentz
 Assistant General Manager/Administrator



COMMUNITY UPDATE

Social Services

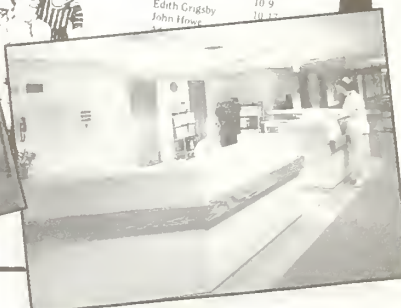
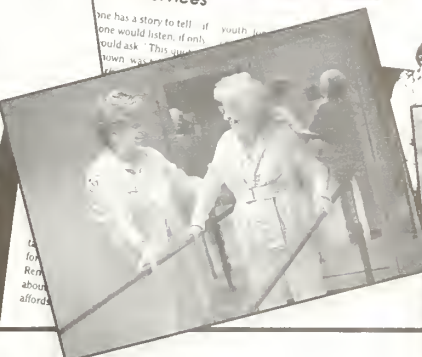
One has a story to tell if youth would listen, if only could ask. This question was asked by...



BIRTHDAYS

Birthday Wishes To:

Ted Stregman	10 4
Al Coulter	10 9
Edith Grigsby	10 12
John Howard	



Quality healthcare with personal services that pamper in a gracious, warm setting.

The HealthCare Center at Summer Trace Retirement Communities offers quality-of-life HealthCare. It is a totally private pay facility dedicated to pampering its guests. Open to the public, its objective is to serve people of discriminating taste in Carmel and the Northern Indianapolis area.

Quality Nursing Care, physical therapy services, and a comprehensive recreation program are offered by our extensive professional staff within a warm, family oriented atmosphere.

Impeccable Housekeeping along with personal services and amenities are combined with delicious meals from a selective menu to maximize the quality-of-life experience.

HealthCare Accommodations and Services are available on a short or long-term basis.

The HealthCare Center at Summer Trace
Quality-of-Life care for people of discriminating taste."

(317) 848-2448



12999 N. Pennsylvania St., Carmel, IN 46032

Benefits available to members of the Indiana State Medical Association and their employees through expanded ISMA group sponsored Lincoln National Life health insurance coverage:

MEDICAL PLAN 1

- 365 Days of Inpatient Hospital Care
- 100% payment semi-private or hospital ward room including the cost of blood
- 365 Days In-Hospital Medical Care
- Reasonable and Customary allowances for surgery, maternity, general anesthesia, medical visits, and radiation therapy
- \$500 Supplemental Accident
- Unlimited Major Medical Benefits

MEDICAL PLAN 2

- Comprehensive Major Medical expense protection — \$500 Calendar Year Deductible
- Unlimited Maximum Benefits

MEDICAL PLAN 3

- Comprehensive Major Medical expense protection — \$250 Calendar Year Deductible
- Unlimited Maximum Benefits

MEDICAL PLAN 4

- Low cost comprehensive Major Medical expense protection — \$2,000 Calendar Year Deductible
- Unlimited Maximum Benefits

MEDICAL PLAN 5

- Comprehensive Major Medical expense protection — \$250 Calendar year Deductible
- Includes cost-containment features
- Unlimited Maximum Benefits

MEDICAL PLAN 6

- Comprehensive Major Medical expense protection — \$100 Calendar Year Deductible
- Includes cost-containment features
- Unlimited Maximum Benefits

MEDICAL PLAN 7

- Economical Comprehensive Major Medical expense protection — \$1,000 Calendar Year Deductible
- Unlimited Maximum Benefits

SUPPLEMENTAL BENEFITS FOR ORGAN OR TISSUE TRANSPLANTS

- Included with all medical plans.
- Covered Transplant Procedures: This policy covers any of

the following human to human organ or tissue transplants: bone marrow; heart; heart/lung; liver; lung; pancreas.

- Transplant Benefit Period: The transplant benefit period begins five days before the date of the organ or tissue transplant and ends eighteen months after the date of the organ or tissue transplant.
- Maximum Transplant Benefit: \$1,000,000 per lifetime per insured person for all transplant services.

DENTAL PLAN

- Reasonable and Customary allowances for necessary care and treatment for dental health
- \$1,500 Maximum Dental Benefit per person in a Calendar Year

MEDICAL REIMBURSEMENT PLAN

- Tax Deductible to the professional corporation

The Lincoln National Life Insurance Company is most pleased to be underwriting the Group Medical and Dental Program for the Indiana State Medical Association. Your benefit programs have been designed to provide the highest quality coverage and service at the lowest possible cost. A special claim paying unit has been established in our Fort Wayne Regional Claims Office to handle only the ISMA program. Should you have questions or problems, you may speak directly to your claim processor at 800-338-0363. We look forward to serving your association and encourage your review of the program and services being provided.

For more information contact:

Earl W. Williams
Professional Account Representative
11595 N. Meridian St., Suite 802
Carmel, Indiana 46032
(317) 573-6520
1-800-421-3020 Indiana
1-800-428-7105 Other States

Tom Martens
Director, Health Insurance Administration
Indiana State Medical Association
3935 North Meridian Street
Indianapolis, Indiana 46208
(317) 926-4424
1-800-969-7545 Indiana

Rodney A. Mannion, M.D.
LaPorte, Ind.

Health Risks and the Press, edited by Mike Moore, The Media Institute, 3017 M St., N.W., Washington, DC 20007, 1989, \$12.95, plus \$1 for shipping.

The authors of *Health Risks and the Press* represent the elite of a specialized group of science reporters who comment on and promote various scientific projects. The writers include Mike Moore, general editor of *The Quill*, the journal of the Society of Professional Journalists, three science professors at renowned universities and two science journalists who have been editing service science at prominent American newspapers. This book presents some of the difficulties in good

scientific reporting.

The table of contents includes six chapters, one by each of the contributors, a preface and appendix. The appendix includes a list of organizations of interest to science and health writers.

I especially enjoyed Moore's first chapter, titled "Beware the Bracken Fern," and the final chapter, called "Sorting Through the Chaff," by Ronald Kotulak from the *Chicago Tribune*. An example of balanced reporting is Moore's evaluation of Rachel Carson's famous book *Silent Spring*. Moore says nature may not always be fine and benign but is often "red of claw," as with the Bracken Fern, which is ubiquitous and carcinogenic.

This book is replete with insights and epiphanies. Medical authors also are criticized because some have been dishonest, and

others deal in half truths to promote their causes in science. Many medical authors release information prematurely. The media pick it up and cause untold mischief.

An example of false science involves the tobacco industry. Proponents of tobacco use insist on unrealistic burdens of proof against tobacco and, thus, are phony and false. Professor Kenneth Warner of the University of Michigan expands on this problem in his chapter.

The entire book must be read to appreciate all of these details. I only wish more broadcast and print reporters would take these points to heart and stop pandering to their audiences. This would be a great service to the medical profession.

This is a book worth reading by any physician. □

- ISMA MEMBERS -

Mark Your Calendars!

The 1990 ISMA convention will be held Nov. 2-4 at the Radisson Hotel in Indianapolis.

Watch future issues for more information.

Frank B. Ramsey, M.D.
Indianapolis

Up From Coal City, by William S. Yocum, M.D., 6411 Ellsworth Place, Merrillville, IN 46410, 1989, 375 pages, \$20.

William S. Yocum, M.D., who practices in Merrillville, has written his autobiography. According to Yocum, he intended to write a biography but instead wrote a history of the 20th cen-

tury.

The book starts with Yocum's childhood memories, proceeds through his schooling, detailing childhood games and pranks, and his adventures in medical school. This book is a grand review of Yocum's medical education, internship, residencies, his service in the Army Medical Corps and other events.

Dr. Yocum's experiences are vividly detailed and thoroughly entertaining. This book is highly recommended. □

CARDIOLOGY – DIAGNOSTIC & INTERVENTIONAL

NASSER, SMITH AND PINKERTON CARDIOLOGY, INC.



providing

William K. Nasser, M.D.

Michael L. Smith, M.D.

Cass A. Pinkerton, M.D.

James W. VanTassel, M.D.

Dennis K. Dickos, M.D.

John D. Slack, M.D.

Charles M. Orr, M.D.

Jane Howard, M.D.

James H. Adlam, M.D.

V. Michael Bournique, M.D.

Frank J. Green, M.D.

Nancy A. Branyas, M.D.

Charles P. Taliercio, M.D.

Bruce F. Waller, M.D.

Cardiology and Cardiac Catheterization

Echocardiography

Exercise Stress Testing

Coronary Angioplasty

Nuclear Cardiology

Pacemaker Surveillance

Holter Monitoring

Percutaneous Valvuloplasty

Electrophysiologic Testing

Coronary Atherectomy

Myocardial Biopsy

Automatic Implantable Cardioverter Defibrillator

Suite 400

St. Vincent Professional Building

8402 Harcourt Road

Indianapolis, Indiana 46260

Telephones:

Office: **317-871-6666**

Toll Free:

800-732-1482 (Indiana)

800-CHD-PTCA (Indiana)

800-CAD-PTCA (National)

*PHYSICIAN
REFERRAL ONLY*

CARDIOLOGY



INDIANA HEART PHYSICIANS, INC.

Beech Grove Medical Center
112 North 17th Avenue
Suite 300
Beech Grove, IN 46107

With additional offices located in the
Indianapolis-Greenwood area and
Columbus

Indianapolis-Greenwood
(317) 783-8800
(800) 992-2081 (Indiana Only)
Columbus:
(812) 379-2020
(800) 537-9587 (Indiana Only)

H O Hickman, Jr., MD, FACC
Thomas M. Mueller, MD, FACC
J Douglas Graham, MD, FACC
Kathleen H. Flohr, PhD, MD, FACC
Jeffery F. Christie, MD
David J. Hamilton, MD
Stephen H. Kliman, MD, FACC
Thomas C. Passo, MD
Kevin C. Preuss, MD, FACC
Emily A. Diltz, MD, FACC
John E. Batchelder, MD, FACC, FCCP

Cardiology and Cardiac Catheterization
Coronary Angioplasty
Balloon Valvuloplasty
Electrophysiology
Permanent Pacemaker Implantation
Nuclear Cardiology
Doppler and Echocardiography
Exercise Stress Testing
Holter Monitoring
ECG Event Monitoring
Pacemaker Surveillance
Stress Echocardiography
Noninvasive Peripheral Vascular
Evaluation



Indianapolis Cardiology Associates, Inc.

Robert E. Edmands, M.D., FACC
Samuel M. Hazlett III, M.D.
Don B. Ziperman, M.D., FACC

Physician Referral Only

- Cardiology and Cardiac Catheterization
- Doppler and Echocardiography
- Exercise Stress Testing
- Coronary Angioplasty
- Pacemaker Surveillance
- Holter Monitoring

1315 North Arlington Ave.
Suite 100
Indianapolis, IN 46219
(317) 359-5301

7250 Clearvista Dr.
Suite 227
Indianapolis, IN 46256
(317) 841-5385

CARDIOLOGY

FORT WAYNE CARDIOLOGY

Basil C. Genetos, M.D., F.A.C.C.
Robert W. Godley, M.D., F.A.C.C.
Michael J. Mirro, M.D., F.A.C.C.
Kevin J. Kelly, M.D., F.A.C.C.

Fred Doloresco, M.D., F.A.C.C.
John F. Phillips, M.D., F.A.C.C.
Patrick J. Daley, M.D., F.A.C.C.
William W. Wilson, M.D.

are pleased to announce the association of

James J. Heger, M.D., F.A.C.C.

for the practice of cardiology.

Fort Wayne Cardiology, Inc.

P. O. Box 5603
1912 Carew Street
Fort Wayne, IN 46895-5603
(219) 482-4865
1-800-637-6505 (Indiana)
1-800-334-4371 (Ohio, Michigan, Kentucky, Illinois)

CARDIOLOGY

Cardiology Consultants, P.C.

is pleased to announce the association of

Peter C. Hanley, M.D., F.A.C.C.

for the practice of cardiology

Robert E. Swint, M.D.
David A. Kaminskas, M.D.
Mary H. Heintz, M.D.
Brian T. Lew, M.D.

Mark A. Jones, M.D.
Gary A. Hambel, M.D.
Ravi N. Bathina, M.D.
Gregory C. Tomlinson, M.D.

Peter C. Hanley, M.D.

3000 South Wayne Ave.
Fort Wayne, IN 46807
(219) 744-2297

7224 Engle Rd.
Fort Wayne, IN 46804
(219) 432-2297

800 Broadway, Suite 204
Fort Wayne, IN 46802
(219) 422-2558

(800) 777-2297

ORTHOPAEDIC SURGERY

FRACTURE CARE/TRAUMA
SPORTS MEDICINE
ARTHROSCOPIC SURGERY
JOINT RECONSTRUCTION
SCOLIOSIS
SPINAL SURGERY
SHOULDER SURGERY
HAND SURGERY
FOOT SURGERY
PEDIATRIC ORTHOPAEDICS
ADULT ORTHOPAEDICS



OFFICE ANSWERS DAY & NIGHT

TOLL FREE IN INDIANA (800) 223-3381

DONALD S. BLACKWELL, M.D.
F.R. BRUECKMANN, M.D., F.A.C.S.
ANTHONY R. LASICH, M.D.
WILLIAM O. IRVINE, M.D.
JOSEPH C. RANDOLPH, M.D.
DONALD E. RUSSELL, M.D.
MARK R. STEVENS, M.D.
TERRY R. TRAMMELL, M.D.
ANDREW J. VICAR, M.D.
VINCENT L. FRAGOMENI, M.D.
JOHN K. SCHNEIDER, M.D.
JOSEPH R. BAELE, M.D.
SANFORD S. KUNKEL, M.D.
DAVID A. FISHER, M.D.
HENRY G. STEIN, M.D., F.A.C.S.
Orthopaedic Surgeons

MAIN OFFICE
1801 N. Senate Blvd.
Suite 200

923-5352

Appointment Scheduling 924-2778

WESTLAKE
805 Beachway Dr.

244-9499

DANVILLE
252 Meadow Dr.

745-4525

Major Credit Cards Accepted

■ physicians' directory

CRITICAL CARE

Critical Care Medicine

*Specialists
in the care of
critically ill or
injured patients*

David Powner, MD, FCCP, FCCM

Michael Buran, MD Regis Lagler, MD

Stephen Olvey, MD Daniel J. Polacek, MD



1701 North Senate Boulevard
Indianapolis, IN 46202

**For information
and patient referrals
(317) 929-5293**

After office hours for patient referrals call
929-8551 and page Critical Care Intensivist.

ABDOMINAL SURGERY

TED W. GRISELL, M.D.

*Providing consultative services
for physicians throughout Indiana
for patients with
complex management problems*

5317 East 16th Street
Indianapolis 46218

317-359-8261
Phone answered 24 hours

NEUROLOGY

Shirley M. Mueller, M.D.

General Neurology

Pain, Headache &

Diseases of the Autonomic Nervous System Including Dizziness

Testing Available

317-871-6000

Indianapolis

North: St. Vincent's Professional Bldg. #726

South: University Heights Professional Bldg., Suite M

PLASTIC SURGERY



AMERICAN SOCIETY OF
PLASTIC & RECONSTRUCTIVE
SURGEONS, INC.

John G. Pantzer Jr., M.D., F.A.C.S.
Diplomate, American Board
of Plastic Surgery

Bradley L. Kudlaczky, M.D.

1801 North Senate Blvd., Suite 735
Indianapolis, Indiana 46202
317-929-5500

DOCTORS:

This space is available.

For rates, write or call Indiana Medicine, 3935 N.
Meridian St., Indianapolis, IN 46208, (317) 925-7545,
or 1-800-969-7545 in Indiana only.

CLINICAL & ANATOMIC PATHOLOGY



ANATOMIC PATHOLOGY/CYTOLOGY

Surgical Pathology
Gynecologic/Respiratory
and Fluid Cytology
Fine Needle Aspiration Biopsy
Performance and Interpretation

LABORATORY AND OFFICE

7430 North Shadeland Ave.
Indianapolis, IN 46250
(317) 841-0133

Edwin E. Pontius, M.D.

Director

Mary L. Forster, M.D.

Ted Bloch, M.D.

G.R. Schwenk Jr., M.D.

Robert J. Swedo, M.D.

Board Certified Pathologists

COURIER SERVICES FOR:

Physician Offices
Ambulatory Surgery Centers
Hospitals

Medicare/Medicaid Approved
(Assignments Accepted)
Blue Shield Preferred Provider
Accept Maxicare, PMA/PHA, etc.

OTOLOGY

DOCTORS:

This space is available.

For rates, write or call
Indiana Medicine
3935 N. Meridian St.
Indianapolis, IN 46208
(317) 925-7545
1-800-969-7545 in Indiana only

MERIDIAN OTOLOGY LAB

*Complete Audiometric Evaluations

*Hearing Aid Evaluations and Dispensing

*Brainstem Auditory Evoked Response

*Visual Evoked Response

*Electronystagmography

*Assistive Listening Devices—Demonstrations Available

Richard Kurtz, M.D.

Jack Summerlin, M.D.

Marvin R. Kolodny, Ph.D.

Director of Audiology

3266 N. Meridian Street Indianapolis, Indiana
Suite B12 (317) 925-7077

ALCOHOLISM TREATMENT

Indiana's Leading Hospitals Specializing In The Treatment of Alcoholism and Drug Abuse.



- adolescent program
- adult program
- family program
- older adults program
- impaired professionals program
- cocaine program
- outpatient program
- disabled program
- relapse program
- co-dependency program

OUTREACH OFFICES

Bloomington • Fort Wayne • Clarksville • Merrillville • Indianapolis • Marion
South Bend • Greenwood • Kokomo • Lafayette

Michael Chadwick, M.D.
David Gregory, M.D.
Koala Center
2223 Poshard Drive
Columbus, Indiana
(812) 376-1711

John Saalwaechter, M.D.
Koala Adolescent Center
1404 S. State Avenue
Indianapolis, Indiana
(317) 783-4084

Daniel Kubley, M.D.
Koala Center
1800 N. Oak Road
Plymouth, Indiana
(219) 936-3784

Kete Cockrell, M.D.
Koala Center
1711 Lafayette Avenue
Lebanon, Indiana
(317) 482-3711

Indiana Toll-Free • 24-Hour HELPLINE • 1-800-622-4711

ALCOHOLISM TREATMENT

Eugene G. Roach, M.D.
Executive/Medical Director



Anderson Center
of Saint John's
2210 Jackson Street
Anderson, Indiana 46016

1-800-435-9143 or (317) 646-8383

- Comprehensive Alcohol and Drug Treatment
- Separate Programs for Adolescents and Adults
- Free Assessment and Intervention

ALCOHOLISM TREATMENT

Douglas Bullington, M.D.
Program Director



COUNTERPOINT CENTER
at CPC Valle Vista Hospital
898 E. Main Street
Greenwood, IN 46143
317/887-1348

- Free evaluation and intervention
- Adult & Adolescent Treatment Services
- 24 hours-a-day

■physicians' directory

INTERNAL MEDICINE

NEPHROLOGY & INTERNAL MEDICINE, INC.

Thomas Wm. Alley M.D., FACP

George W. Applegate M.D.

Richard Bloch M.D.

Charles B. Carter M.D.

William H. Dick M.D., FACP

Theodore F. Hegeman M.D.

Douglas F. Johnstone M.D.

Wendy L. Kindig M.D.

LeRoy H. King Jr. M.D., FACP

Mary A. Margolis M.D.

Tim E. Taber M.D.

**1801 N. Senate Blvd., Suite 355
Indianapolis 46202
Tel: 317-924-8425**

By Physician Referral

Answering Service 926-3466

Clinical Nephrology, Hemodialysis, Peritoneal Dialysis, Renal Transplantation, Metabolic Kidney Stone Disease, Hypertension, Fluid and Electrolyte Imbalance, Critical Care

HEMODIALYSIS

CHRONIC MAINTENANCE OUTPATIENT HEMODIALYSIS

DIALYSIS INSTITUTE OF ANDERSON

2629 Nichol Avenue
Anderson, Indiana 46011
317-649-0772

DIALYSIS INSTITUTE OF BEECH GROVE

3834 South Emerson Avenue
Indianapolis, Indiana 46203
317-787-3171

DIALYSIS INSTITUTE OF KOKOMO

Community Medical Arts Center
3611 South Reed Rd. (31 Bypass)
Kokomo, Indiana 46902
317-453-0606

For further information contact

NEPHROLOGY & INTERNAL MEDICINE, INC.

1801 N. Senate Blvd., Suite #355
Indianapolis, Indiana 46202
317-924-8425

Outpatient renal consultation may be
scheduled at any location.

HAND SURGERY

JOHN C. KLEIN, M.D.

Specializing in the diagnosis and treatment of hand,
wrist, and forearm disorders.

2727 N. Pennsylvania St.
Indianapolis, IN 46205

317-925-1665
Answered 24 hours

Diplomate American Board of Orthopedic Surgery
with certificate of added qualifications in surgery of the hand.

HEMATOLOGY - ONCOLOGY

JOHN A. CAVINS, M.D.

8220 NAAB ROAD, SUITE 105
INDIANAPOLIS INDIANA 46260
TELEPHONE (317) 876-1036

SERVING

INDIANAPOLIS

CARMEL

NOBLESVILLE

DERMATOPATHOLOGY

DERMATOPATHOLOGY LABORATORY

Larry J. Buckel, M.D.
Robert M. Hurwitz, M.D.

Howard R. Gray, M.D.
William B. Moores, M.D.



Diplomates of the American Boards
of
Dermatology and Dermatopathology

Specializing in
Inflammatory Skin Diseases
and
Neoplasms of the Skin

9202 North Meridian Street
Suite 215

Approved for and Accept
Medicare and Medicaid
Assignment

Indianapolis, Ind. 46260
(317) 843-2204

UPS Mailers and Courier Service Available

PSYCHIATRY

Eugene G. Roach, M.D.
Executive/Medical Director



Anderson Center

of Saint John's
2211 Jackson Street
Anderson, Indiana 46011

1-800-435-9143 or (317) 646-8114

- Comprehensive Psychiatric Treatment
- Separate Programs for Adolescents, Adults and Older Adults
- Program for Dual Diagnosis

PSYCHIATRY

Davis Psychiatric Clinic, Inc.

1431 North Delaware Street
Indianapolis, Indiana 46202
317/634-9930

Larry M. Davis, M.D.
R. Peter Mohlman, M.D.
Judith L. Campbell, M.D.

Comprehensive Child, Adolescent, Adult Psychiatry
Sexual Therapy, Crisis Intervention
Alcohol and Substance Abuse

PERIPHERAL VASCULAR SURGERY



VASCULAR SURGERY, P.C.

Austin L. Gardner, M.D.
Malcolm B. Herring, M.D.
Daniel R. LeGrand, M.D.
David L. Madison, M.D.
Spencer F. Goodson, M.D.

Vascular
Diagnostics
— *Mobile*
— *Non-invasive*
— *Testing*™

St. Vincent Professional Building
8402 Harcourt Road
Suite 613
Indianapolis, Indiana 46260
Telephone (317) 871-6400
TOLL FREE (800) 662-5367

Carmel Medical Center
13450 North Meridian Street
Suite 160
Carmel, Indiana 46032
Telephone (317) 573-7040
TOLL FREE (800) 446-0298



The Vascular Lab

**NONINVASIVE
VASCULAR TESTING**

The vascular lab offers a full spectrum of diagnostic vascular testing services, including the new addition of color computed sonography, supported by the entire team of:

John F. Ansbro, M.D. • Alan T. Marty, M.D. • Herbert Dan Adams, M.D.
Richard A. Murrell, M.D. • Daniel B. Daniels, M.D.

Cardiovascular Surgery Inc.

350 West Columbia
Suite 350
Evansville, Indiana 47710
812-423-2395

BREAST DISEASES

INDIANA CENTER FOR BREAST DISEASES

DAVID W. PRICE, M.D.

Practice limited to Multidisciplinary Treatment of
BREAST DISEASES

Diagnosis	(317) 872-9580
Consultation	8330 Naab Road, Suite 213
Treatment options	Indianapolis, IN 46260
Preservation surgery	
Long-term followup	Appointment by referral

ASTHMA & ALLERGY

MARK HOLBREICH, M.D.

PEDIATRIC AND ADULT
ASTHMA, ALLERGY AND IMMUNOLOGY

8803 N. Meridian St.
Suite 365
Indianapolis, Indiana
(317) 574-0230

- | | |
|-----------------|---------------------------|
| ○ Asthma | ○ Adverse Food Reactions |
| ○ Chronic Cough | ○ Drug Sensitivity |
| ○ Rhinitis | ○ Stinging Insect Allergy |

COLON & RECTAL SURGERY

KCRA



Kendrick Colon
and Rectal Associates

William M. Kendrick, M.D.
George A. Donnally, M.D.
R. James Wilson, M.D.

William E. Kelley, M.D.
Richard L. Stout, M.D.
Paula A. Hall, M.D.

William M. Sobat, M.D.

*Specialists in the Diagnosis and Treatment of Colon and Rectal Disease
General Surgery Services Available*

For more information call: Kendrick Colon & Rectal Associates,
Tel: 317-831-9300 or 1-800-222-7994

Kendrick Memorial Hospital, Mooresville, Indiana
(JCAHO Accredited)

Regional Offices: Muncie, Kokomo & Greensburg

ONCOLOGY — HEMATOLOGY

INDIANA ONCOLOGY-HEMATOLOGY CONSULTANTS



ADULT ONCOLOGY HEMATOLOGY

Laurence H. Bates, M.D.
William H. Bond, M.D.
William M. Dugan, M.D.
Redmond P. Hogan, M.D.
Gregory W. Smith, M.D.

PEDIATRIC ONCOLOGY HEMATOLOGY

Deborah S. Provisor, M.D.

1828 N. ILLINOIS
INDIANAPOLIS
INDIANA 46202

PHONE: 317/927-5770
TOLL FREE: 1-800-ONC-HEME
1-800-662-4363

*Located in the Byram Gates Middleton House
Listed on the National Register of Historic Places*

RADIATION ONCOLOGY



Physicians:
ROGER ROBISON
DAVID BELL
TAE CHUNG

Radiation Oncology Services for Southwest Indiana

TERRE HAUTE
Regional Hospital
(812) 234-7756

VINCENNES
Good Samaritan Hospital
(812) 885-3939

ROGER ROBISON, M.D., F.A.C.P.
M.D. Anderson, 1980
Certified: Radiation
Oncology
Medical Oncology

DAVID BELL, M.D., Ph.D.
M.D. Anderson, 1981
Certified: Radiation
Oncology

TAE CHUNG, M.D.
Chicago Hines, V.A., 1976
Certified: Radiation
Oncology

RADIATION ONCOLOGY

TRI-STATE RADIATION ONCOLOGY

Evansville Cancer Center
Evansville, Indiana
(812) 474-1110



Welborn Cancer Center
Evansville, Indiana
(812) 426-8373

AL KORBA, M.D.; ALY RAZEK, M.D.
THOMAS HAYES, M.D.; AMR AREF, M.D.; SHANNON LAMB, M.D.

★ ★ ★ ★ ★

Tri-County Cancer Care Center
Jasper, Indiana
(812) 482-2212
DEVIDAS SHETH, M.D.

Tri-County Cancer Care Center
Princeton, Indiana
(812) 386-6663
MOISES DOMINGO, M.D.

★ ★ ★ ★ ★

Olney Cancer Center
Olney, Illinois
(618) 392-3050
MOISES DOMINGO, M.D.

Harrisburg Oncology Associates
Harrisburg, Illinois
(618) 252-5126
MANJU GUPTA, M.D.

★ ★ ★ ★ ★

Radiation Oncology
Owensboro, Kentucky
(502) 926-7228
TRISTAN BRIONES, M.D.

Henderson Cancer Center
Henderson, Kentucky
(502) 827-0255
AMR AREF, M.D.

★ ★ ★ ★ ★

In Indiana 1-800-843-7117 • Out of Indiana 1-800-331-9294
24-hour answering service (812) 476-1367

ONCOLOGY

Indiana Regional **Cancer Center**

Science made Human.

Medical Oncology And Hematology

L.K. Everson, M.D.

Andrew Ross
Greenspan, M.D.

Shivaji Gunale, M.D.

Keith Logie, M.D.

M.S. Murali, M.D.

Radiation Oncology

Nini Bermudez-Webb, M.D.

Thomas O'Connor, M.D.

Palliative Care

Neil Irick, M.D.



Community Hospitals Indianapolis

(317) 353-4758

PHYSICAL MEDICINE & REHABILITATION

Physician's **B**ack **P**ain **C**linic, P.C.

A medical team approach to musculoskeletal and spinal pain disorders offering physical therapy, therapeutic exercise and manual manipulation.

DIAGNOSTIC ELECTROMYOGRAPHY

- Personal injury • Workman's compensation
- Impairment rating • Disability evaluation

350 WEST COLUMBIA • SUITE 100 • EVANSVILLE, INDIANA 47710 • 812/425-2662

————— *Board Certified* —————

Clint Mallari, M.D. • Laurance Silverman, M.D.
David Wm. Johnson, M.D.

ORTHOPAEDIC SURGERY

JAMES L. KAISER, M.D.



- ORTHOPAEDIC SURGERY
- FRACTURES
- BACK SURGERY
- FOOT SURGERY
- ARTHROSCOPIC SURGERY

Certified American Board
Of Orthopaedic Surgery

5626 East 16th Street
Indianapolis, IN 46218

(317) 352-0176

OFFICE ANSWERS DAY & NIGHT

5626 E 16
82nd & Shadeland
If No Answer Call

352-0176
352-0176
543-6089

DOCTORS:

This space is available.

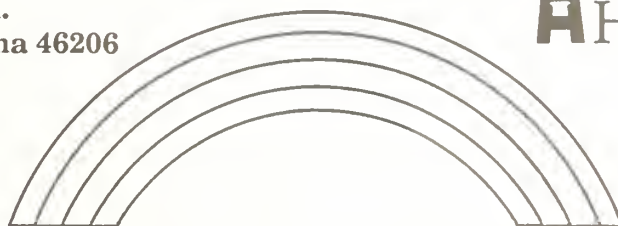
For rates, write or call
Indiana Medicine
3935 N. Meridian St.
Indianapolis, IN 46208
(317) 925-7545

1-800-969-7545 in Indiana only

TRANSPLANTATION

METHODIST TRANSPLANT CENTER

P.O. Box 1367
1701 N. Senate Blvd.
Indianapolis, Indiana 46206



24 - HOUR REFERRAL

(800) 772-7788

HEART TRANSPLANTATION

Surgical Director
Harold Halbrook, M.D.
Program Cardiologist:
Douglas Pitts, M.D.

LUNG TRANSPLANTATION

Surgical Director
Harold Halbrook, M.D.
Program Pulmonologist:
Michael Niemeier, M.D.

KIDNEY TRANSPLANTATION PANCREAS TRANSPLANTATION

Surgical Director
Brian Haag, M.D.
Program Nephrologist:
Charles Carter, M.D.

LIVER TRANSPLANTATION

Surgical Director
Dale A. Rouch, M.D.
Program Gastroenterologists:
Peds - Vanessa Z. Ameen, M.D.
Adult - Brian G. Sperl, M.D.

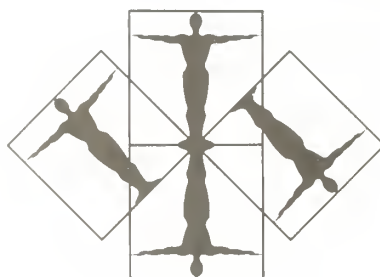
CORNEAL TRANSPLANTATION

Surgical Director
Stephen Johnson, M.D.

TISSUE/BONE BANK

Medical Director
David A. Fisher, M.D.

ORTHOPAEDICS & SPORTS MEDICINE



Hoosier Orthopaedics & Sports Medicine, P.C.

Total Joint Replacement
Athletic Injuries and Sports
Medicine
Arthroscopic Surgery
Pediatric and Adult Orthopaedics
Fracture Care/Trauma

Reconstructive Surgery of the Foot
and Ankle
Reconstructive Surgery of the
Shoulder or Knee
Back Surgery
General Orthopaedics

Robert T. Clayton, M.D.
Robert E. Cravens, M.D.
John E. Garber, M.D.
Robert M. Palmer, M.D.
Stephen B. Sexson, M.D.
Frank B. Throop, M.D.
Thomas F. Trainer, M.D.

Office Answers Day and Night

13450 North Meridian Street, Suite 355, Carmel, Indiana 46032 (317) 575-2700

8330 Naab Road, Suite 234, Indianapolis, Indiana 46260 (317) 872-3254



The Doctor's Insurance Company. In More Ways Than One.

Physicians Insurance Company of Indiana (PICI) has a different approach to medical professional liability insurance. Indiana physicians serve on the Board of Directors, Underwriting and Claims Committees. PICI works closely with the Indiana State Medical Association. It talks with physicians. It listens to physicians. It understands. It cares. PICI really is the doctor's insurance company, in more ways than one.



**PHYSICIANS INSURANCE
COMPANY OF INDIANA**

8425 Woodfield Crossing Boulevard, Suite 300, Indianapolis, Indiana 46240
(317) 469-4100 • Toll free 1-800-284-7424

■ news briefs

New AMA book explains professional corporations

Are you trying to decide if it still makes sense with the new tax law for your practice to be incorporated? The all-new edition of *A Physician's Guide to Professional Corporations* can help you resolve this question.

Available from the American Medical Association, the book explains the pros and cons of incorporation and outlines legal and tax implications. It clarifies the rules of operating a professional corporation by translating this complex issue into common terms using a point-by-point approach.

The book is \$18 for AMA members and \$27 for nonmembers. To obtain a copy, write to the American Medical Association, Book and Pamphlet Fulfillment, P.O. Box 10946, Chicago, IL 60610-0946, or call 1-800-621-8335.

AIDS in Indiana topic of two-day workshop

HIV/AIDS in Indiana will be the focus of a workshop June 27 and 28 at the Sheraton Marten House in Indianapolis.

Topics will include the identification of the concerns, needs and treatment issues of sub-population groups. Health care providers will learn how to help people with AIDS achieve a healthier and more balanced life.

Sponsors of the workshop are the AIDS Hospital Committee, the Richard L. Roudebush Veterans Administration Medical Center and the National Association of Social Workers. The workshop will be dedicated to the memory of Ryan White, the 18-year-old

Indiana resident who died of AIDS April 8.

For information, call (317) 872-4111.

Ethics manual published

The American College of Physicians (ACP) has announced the release of its new ethics manual.

Topics include withdrawal of life support, treatment of AIDS, cost control, confidentiality, criticism of a colleague, euthanasia, abortion and contraception, the impaired physician and advertising.

The manual is available from ACP's Subscriber Services for \$7. To order, call (215) 351-2600.

New booklet explains universal precautions

The Channing L. Bete Co. has published a new booklet titled "About Universal Precautions," which teaches health care workers how to reduce their risk of exposure to bloodborne diseases.

The booklet explains the use of protective barriers such as gloves, masks and gowns and discusses safe practices for the use and disposal of sharps, handling of infectious waste and contact with blood and other body fluids.

To order the booklets, write to Channing L. Bete Co., Inc., 200 State Road, South Deerfield, MA 01373.

AIDS textbook written by 50 clinical experts

The AIDS Knowledge Base, a new textbook containing the detailed findings and recommendations of 50 clinical experts, is available from the publishers of the *New*



Martin J. O'Neill, M.D., Valparaiso, right, accepts a service award plaque from John T. Hinton, D.O., president of the Indiana Medical Licensing Board. Dr. O'Neill, a former ISMA president, was recognized for eight years of service on the licensing board and also received a Sagamore of the Wabash Award.

England Journal of Medicine, the *Morbidity and Mortality Weekly Report* and *AIDS Clinical Care*.

The 1,100-page book contains information based on a decade of experience treating HIV-related disease at the University of California, San Francisco, and the San Francisco General Hospital. Section topics include testing for human immunodeficiency virus, clinical manifestations of HIV infection, pediatric AIDS, systems of care for the AIDS patient and ethical issues related to AIDS.

To order, write to The Medical Publishing Group, 1440 Main St., Waltham, MA 02154-1649, or call 1-800-843-6356. □

Edward K. Denzer, M.D.

Dr. Denzer, 84, a retired Evansville general surgeon, died April 2 at Deaconess Hospital in Evansville.

He was a 1929 graduate of the Indiana University School of Medicine and received one of nine memberships in Alpha Omega Alpha. He was an Air Force major during World War II and was stationed in England, Germany and France.

Dr. Denzer practiced medicine 50 years and was a member of the American College of Surgeons.

Charles L. George, M.D.

Dr. George, 81, a retired Indianapolis anesthesiologist, died April 15.

He graduated from the Indiana University School of Medicine in 1932 and was an Army veteran of World War II. His diary, titled *58th Evacuation Hospital*, was published and detailed his World War II experiences.

Dr. George practiced medicine 30 years at St. Vincent Hospital in Indianapolis before retiring in 1978. He was certified by the American Board of Anesthesiology.

Guy B. Ingwell, M.D.

Dr. Ingwell, 86, a retired Knox general practitioner, died March 29 in London, Ontario, Canada.

He was a 1942 graduate of the Indiana University School of Medicine and served as the first chief of staff at Starke County Memorial Hospital. He was a member of the Knox City Council, the Knox School Board and the board of directors of Beatty Memorial Hospital in Westville.

Dr. Ingwell was a past president of the Starke County Medical Society and a former ISMA delegate.

Ramona J. Middleton, M.D.

Dr. Middleton, 62, an obstetrician and gynecologist, died Feb. 16 at Elkhart General Hospital.

She was a 1952 graduate of the University of Nebraska Medical School and began her Elkhart practice in 1956. She was chief of staff at Elkhart General Hospital in 1978 and served as medical staff representative on the hospital board from 1982 until her death.

Dr. Middleton practiced medicine 34 years. She was a member of the American College of Obstetricians and Gynecologists and the

American Medical Women's Association.

Lloyd E. Rosenbaum, M.D.

Dr. Rosenbaum, 80, a retired internist, died March 27 in his Anderson home.

He was a 1937 graduate of the Washington University Medical School in St. Louis and an Army veteran of World War II. He practiced medicine at Community Hospital and St. John's Medical Center in Anderson.

Dr. Rosenbaum was a member of the ISMA Fifty Year Club.

Edward C. Voges, M.D.

Dr. Voges, 77, a retired Terre Haute general practitioner, died April 1 at Methodist Hospital in Indianapolis.

He was a 1935 graduate of the Indiana University School of Medicine and received the Bronze Star as an Army veteran in World War II.

Dr. Voges practiced medicine 50 years and was a member of the American Academy of Family Physicians and the ISMA Fifty Year Club. □

Memorials: Indiana Medical Foundation

The Indiana Medical Foundation Inc., was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of INDIANA MEDICINE. Contributions made to the foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for federal estate and gift tax purposes.

The foundation is pleased to acknowledge the receipt of gifts in remembrance of these individuals:

J. Melvin Masters, M.D.
Nancy A. Roeske, M.D.
Richard Sharp

John W. Beeler, M.D.
Mildred Ramsey
Earl Mericle, M.D.

John Bush
Dallas McKelvey

■ people

Dr. Richard D. Zeph, Carmel, spoke on "Open Structure Rhinoplasty for the Aging Nose" and "Non-Caucasian Rhinoplasty" at the Open Structure Rhinoplasty Course in New Orleans, La. He also attended the "Tunable Dye Laser Workshop" at the Boston University School of Medicine.

Dr. Mark H. Grimm of Indianapolis has been certified by the American Board of Internal Medicine.

Dr. Lee McKinley of Bloomington has been certified in critical care medicine by the American Board of Internal Medicine.

Dr. E. Allen Griggs, a pathologist at Morgan County Memorial Hospital in Martinsville and a medical legal consultant, spoke on "Medical Malpractice and Laboratory Liability" for the Indiana Society for Medical Technology's April meeting in South Bend.

Dr. Larry L. Heck, a radiologist at Methodist Hospital of Indiana and an adjunct professor of nuclear medicine at Ball State University in Muncie, will become a fellow of the American College of Radiology at its annual meeting in September.

Dr. John F. Zeiger of Fort Wayne was elected president of the Indiana Society of Anesthesiologists at its annual meeting in March. Other officers include: **Dr. Gopal Krishna**, Indianapolis, president-elect; **Dr. Barry M. Glazer**, Indianapolis, secretary-treasurer; and **Dr. Donald L. Weninger**, Michigan City, immediate past president. Elected delegates to the House of Delegates of the American Society of Anesthesiologists include: **Drs. Robert E. Longshore**, Kokomo; **Jerry A. Miller**, Indianapolis; **Robert K. Stoelting**, Indianapolis; **Larry G.**

Thompson, South Bend; and **Dr. Glazer**. Alternate delegates include: **Drs. Gerald T. Costello**, Muncie; **Wendell L. Edwards**, Indianapolis; **Philip J. Kline**, Evansville; **Richard L. McCammon**, Indianapolis; and **Steven R. Young**, Indianapolis. Members elected to its board of directors include: **Drs. Jan H. Fisher**, Battle Ground; **Philip J. LaBlonde**, Indianapolis; **Patrick R. O'Neil**, Lafayette; and **Donald C. Stogsdill**, Indianapolis.

Dr. W.W. Stogsdill, Marion County Medical Society Past President and Seventh District ISMA Alternate Trustee, will continue his three-year term as Indiana's director for the Board of the American Society of Anesthesiologists. **Dr. Barry M. Glazer** will continue his three-year term as alternate director.

Dr. Randolph W. Lievertz, an Indianapolis family practitioner, presented "Complications of Menopause" to physicians at Lincoln Memorial Hospital in Newark, Ohio. He also spoke on the "Prevention and Treatment of Osteoporosis" at the annual "Primary Care Update" sponsored by the Muskegon General Hospital in Muskegon, Mich.

Dr. Victor H. Muller, an Indianapolis pathologist, has been appointed to the St. Vincent Hospital and Health Care Center board of directors.

Drs. Paul S. Rider, Elizabeth J. Mann, Ray A. Weitemeier and Joseph J. Zore, all pediatricians at Reid Memorial Hospital in Richmond, recently were certified in pediatric advanced life support.

Dr. Francis A. Ferry, an Indianapolis general practitioner and medical director of the Beech Grove Health Care Center, has been named Indiana Physician of

the Year by Evergreen HealthCare Ltd.

Dr. R. Buckland Thomas has been named medical director of psychiatric services at Deaconess Hospital in Evansville.

Dr. Michael C. Weiss, a Valparaiso internist and former chief of staff at Porter Memorial Hospital, has been named Physician of the Year for 1990 by the Visiting Nurse Association of Porter County and Home Health Services.

Dr. Maurice E. John Jr., a Jeffersonville ophthalmologist, has been chosen to participate in a study using the UV-200 Excimer Laser; he is one of five physicians in the United States who will use the laser to study corneal smoothing.

Dr. John Kencos, a Crown Point internist, has been named president of the medical staff at Our Lady of Mercy Hospital in Dyer. Other officers include: **Dr. Jerome E. March**, a Dyer family practitioner, president-elect; **Dr. Conrad P. Castor**, a Munster cardiologist, secretary; and **Dr. Carlos Cespedes**, a Munster surgeon, treasurer.

Dr. Phillip E. Goshert, a family practitioner, has been elected president of St. John's Medical Center Staff in Anderson. Other officers include: **Dr. John A. Moss**, president-elect; **Dr. Jon M. Maier**, chief of staff; and **Dr. Terry J. Kyle**, secretary-treasurer and chief of medicine.

Dr. Richard B. Juergens was appointed president of the Fort Wayne Medical Education Program and director of its family practice residency.

Dr. Gregory W. Veerkamp of Fort Wayne was elected a fellow of the American Academy of Pediatrics.

Dr. Girdhar L. Ahuja, a neonatologist and chairman of the Special Care Nursery at St. Francis Hospital in Beech Grove, received the Edward M. Micon Teaching Award from the hospital's Family Practice Residency. **Dr. Patrick J. Enright**, assistant director of the Family Practice Residency program, received the John T. Emhardt Award, formerly the Family Practice Role Model Award.

Dr. Ralph W. Elston, Fort Wayne, received the Tri-State University Distinguished Service Award last October; he was recognized for professional excellence and civic awareness. He received the Purple Heart and a distinguished service citation for outstanding meritorious service in World War I signed by General Pershing. □

New ISMA members

Dominick Acquaro, M.D., Fort Wayne, internal medicine.

Farida Ahmed, M.D., Flossmoor, Ill., radiology.

Ronald K. Bloom, M.D., Indianapolis, internal medicine.

Bradley R. Boyd, M.D., Fort Wayne, dermatology.

Judson L. Brewer, M.D., Bloomington, obstetrics and gynecology.

Conrado C. Cortez, M.D., Terre Haute, anesthesiology.

Robert W. Haerr, M.D., Terre Haute, therapeutic radiology.

M. Jennifer Hardin, M.D., Indianapolis, internal medicine.

Charles M. Homra, M.D., New Albany, urological surgery.

Matloob A. Kahn, M.D., Huntington, orthopaedic surgery.

Matthew A. Keefer, M.D., Indianapolis, anesthesiology.

Gregory C. Kiray, M.D., Indianapolis, internal medicine.

Shashi Kumar, M.D., Indianapolis, internal medicine.

George B. Lawson, Michigan City, psychiatry.

Rosalind D. Leaming, M.D., Indianapolis, internal medicine.

Rosemary E. Leitch, M.D., Andrews, general practice.

Edward A. Lelonek, M.D., Fort Wayne, internal medicine.

Robert E. Lempke Jr., M.D., Crawfordsville, anesthesiology.

Brian T. Lew, M.D., Fort Wayne, cardiovascular diseases.

Michael F. Manakas, M.D., Valparaiso, family practice.

Jorge J. Martinez, M.D., East Chicago, internal medicine.

Edward M. Millermaier, M.D., Indianapolis, internal medicine.

Joseph T. Monaco, M.D., Merrillville, orthopaedic surgery.

Richard Mountjoy, M.D., Bedford, dermatology.

George S. Olmsted, M.D., Valparaiso, obstetrics and gynecology.

Jaiminikumar R. Patel, M.D., Terre Haute, anesthesiology.

John L. Rice, M.D., South Bend, pediatrics.

Larrie G. Rinck, D.O., Schererville, general practice.

Claire L. Scheele, M.D., Bluffton, general surgery.

Fredric M. Somach, M.D., Bloomington, neurological surgery.

Wilfredo Souchet, M.D., Anderson, pediatrics.

Patrick J. Stoker, M.D., Terre Haute, cardiovascular surgery.

Sara C. Strickler, M.D., South Bend, obstetrics and gynecology.

David A. Taber, M.D., South Bend, oncology.

Gregory C. Tomlinson, M.D., Fort Wayne, cardiovascular diseases.

Residents

Ann L. Blemker, M.D., Indianapolis, dermatology.

Mary P. Braeuning, M.D., Indianapolis, radiology.

Douglas E. Carr, M.D., Indianapolis, general surgery.

Gregory L. Smith, M.D., Indianapolis, pediatrics. □

Physician Recognition Award recipients

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Adye, Wallace M., Evansville
Ahler, Kenneth J., Rensselaer
Andrews, Ronald K., New Palestine
Angeles, Armando E., Connersville
Babcoke, Gary A., Chesterton
Black, Kenneth A., Portage
Bleza, Maximo T., Munster
Booze, James H., Bloomington
Branco, Arthur M., Munster
Conley, John E., Indianapolis
Crabb, Daniel G., Carmel
Deitsch, Howard C., Richmond

Dragoo, John R., Wabash
Drake, James R., Anderson
Harris, James C., Indianapolis
Henderson, Lawrence W., Vincennes
Hickman, Horace O. Jr., Beech Grove
Hilburn, Jeffrey W., Indianapolis
Losch, Christian J., Elkhart
Painchaud, Lionel A., Muncie
Ribaud, Stephen R., Granger
Stinson, D. Mark, Anderson
Stone, Dennis E., Columbus
Tharp, John D., Muncie

■ classifieds

OB/GYN – Midwest. Another OB/GYN is needed for group serving a population of 36,000 with 650 deliveries a year. Group's building on the campus of 165-bed hospital. Academic appointment possible. \$150,000 cash minimum guarantee for each of first two years; actual earnings should be more. In addition, bonus, all overhead and benefits. Call Walter F. Smith, Ph.D., 1-800-221-4762 or (212) 599-6200.

FAMILY PHYSICIAN needed for lovely northeast Indiana town. Large coverage group, low malpractice, obstetrics optional. Excellent income guarantee and benefits combined with bucolic lifestyle and modern progressive hospital make this a unique opportunity. For more information, call Cheryl Broderick, 1-800-221-4672, or collect (212) 599-6200.

GENERAL SURGEON needed for growing northeast Indiana town 40 miles from Fort Wayne. Join existing practice or enjoy coverage arrangement only. Excellent income and benefits package, office subsidy, low malpractice. Small town living with big city advantage. Call Cheryl Broderick, 1-800-221-4762, or collect (508) 688-9063.

MEDICAL DIRECTOR – Indianapolis-based utilization review/clinical case management company, owned by The Associated Group, seeks full-time medical director to support RN certification and case management staff. (Integration with part-time clinical practice possible). Prefer board-certified primary care physician with both clinical experience and managed care administrative experience. Competitive compensation package. Send current curriculum vitae to: Human Resources, Key Care Health Resources, 5587 W. 73rd St., Indianapolis, IN 46268.

INTERNIST needed for several openings in Colorado Springs, Colo.; Dallas/Fort Worth, Texas; and near Las Vegas, Nev. Practice quality medicine on quality people – where the patient's needs come first. Reach new heights. Call USAF Health Professions collect, (317) 848-5830. Please send CV to: Col. William E. Patterson, HQ USAFRS/RSH, Randolph AFB, TX 78150.

AIM HIGH – Today's Air Force has special opportunities for qualified physicians. As an Air Force physician, you can pursue medical excellence as well as enjoy 30 days vacation with pay per year and a non-contributing retirement plan if you qualify. Discover how special an Air Force physician can be. Call USAF Health Professions, (317) 848-5830.

FOR RENT – Naples, Fla. (week minimum). Condominium near Ritz Carlton with one bedroom plus sofa sleeper, bayside view, one block to ocean, rooftop swimming pool, other amenities. Call for mailing. Business, (317) 231-7253; home, (317) 842-6655.

MULTIPLE AND VARIED physician practice opportunities currently exist in the state of Indiana. Call Patti Quiring at (317) 633-6444 at work or (317) 823-4746 at home. Patti is a physician recruiter for Technical Resource Group, which is an executive search firm headquartered in Indianapolis.

FOR SALE: Refurbished medical instruments. Criticon Monitor, H.P. Monitors, Ohio anesthesia machines, Coulter counter, electrocardia, electrosurgery, cryosurgery, exam tables. O.R. and exam lights. Picker mobile x-ray-200 MA-100 KV, Picker Echoview System-80 C. Contact Bernard Medical Resources, 1555 Dixie Highway, Park Hills, KY 41011, or call (606) 581-5205.

FAMILY PRACTICE OPPORTUNITY – North Vernon, Jennings County, Ind., is seeking two or more family practice physicians for community. Ideal location to practice in community of 6,000 with service area of 25,000. Located 60 miles south of Indianapolis, 60 miles north of Louisville and 70 miles west of Cincinnati. New spacious Medical Arts Building adjacent to local 16-year-old hospital. Start-up incentives with income guarantee; recruitment campaign supported by entire medical community. Send curriculum vitae to or call Gregory Heumann, M.D., President, Jennings County Medical Society, 311 Henry St., North Vernon, IN 47265, (812) 346-7420.

FAMILY PHYSICIAN or general internist to join an active general, industrial and institutional practice in west central Indiana. \$90,000 salary and percentage agreement, depending upon training and experience. Partnership arrangement possible after one year. Contact: Frank Swaim, M.D., Parke Clinic, 503 Anderson St., Rockville, IN 47872, (317) 659-3182.

FAMILY PRACTICE group of three seeks new partner. Well-established clinic in small farming community about 30 miles north of Indianapolis. Hospital two miles away. Guaranteed first-year salary plus good benefits. Send CV to Dr. Les Hart, 12945 N. Harrison Dr., Carmel, IN 46032 or call nights, (317) 575-8517.

CENTRAL INDIANA – Physician-owned emergency group accepting applications for full-time, career-oriented emergency physicians. Flexible work schedules and excellent benefit package. Part-time and directorship positions also available. Send CV or contact Sherry Bussell, Midwest Medical Management, Inc., 528 Turtle Creek, North Drive, Suite F-4, Indianapolis, IN 46227, (317) 783-7474.

EMERGENCY STAFF PHYSICIAN –

Flexible scheduling in low-volume emergency department for experienced candidate. Progressive, expanding primary care hospital. Extensive pre-hospital services. CT scan, remodeled ICU, excellent staff support. Paid malpractice. Health insurance option. A.C.L.S. required. A.T.L.S. desirable. Please contact D.M. Duncan, M.D., Rush Memorial Hospital, 1300 N. Main St., Rushville, IN 46173, (317) 932-4111.

INTERNIST – GREAT OPPORTUNITY.

Very busy, young, solo internist seeking ambitious associate. Family-oriented community on Lake Winnebago with a population of 40,000. No HMOs or PPOs. A unique opportunity for someone who is genuinely interested in internal medicine and its subspecialties. An interest in critical care would be of importance. Send CV to Michael Sergi, M.D., 14 N. Main St., Fond du Lac, WI 54935.

ATTENTION INVESTORS: Great investment opportunity available with an established construction company building the finest single-family homes at prestigious Eagle Village addition, within walking distance of Eagle Creek Golf Course. (317) 852-6966.

PEDIATRIC PARTNER NEEDED – Community: small town atmosphere, populous drawing area. School: national honors. Cultural: University town, 50 miles from Chicago.

Economics: Greatest per capita income in state. Malpractice: Lowest rates in nation. Pediatric practice: 25 years, still expanding. Office: Spacious suite in four-year-old medical building, other specialties associated, lab and x-ray. Hospital: all services, superior neonatal unit. Send CV and practice goals to: Thomas J. Covey, M.D., F.A.A.P., 2101 Cornford Road, Suite 3, Valparaiso, IN 46383.

BOARD-CERTIFIED family practice physician wanted for busy northside Indianapolis practice. Competitive salary, bonus. Send CV and references to: P.O. Box 80433, Box 286, Indianapolis, IN 46280.

POSITION AVAILABLE with thriving three-clinic urgency care corporation. Practice heavily emphasizing industrial, sports medicine and wellness programs. Regular work week, no call. Assistant medical director available. Salary and benefits in six figures. Contact Dr. Dean Elzey, (219) 489-2772.

EMERGENCY MEDICINE – Terre Haute, Ind. Local group seeking full-time career-oriented emergency physician for position in low- and moderate-volume departments. Flexible scheduling, very competitive compensation package. Send CV or contact William R. Grannen, Priority Health Care, P.C., 7179 Lamplite Ct., Cincinnati, OH 45244, (513) 231-0922.

EMERGENCY PHYSICIANS WANTED –

For Fayette Memorial Hospital in Connorsville, Ind. Will consider all physicians with emergency medicine experience. 15,000 visits/year. Fee-for-service group does its own billing. Hourly compensation based on training, experience and qualifications. Excellent fringe benefit package includes, life, health, disability and malpractice insurance plus CME allowance, ACEP and ISMA dues, pension plan and potential bonus. Contact: Michael D. Bishop, M.D., FACEP, Emergency Care Physicians, 640 S. Walker St., Suite A, Bloomington, IN 47403, (812) 333-2731.

FAMILY PRACTICE – Hospital-sponsored clinic opportunity. Dynamic, growth-oriented hospital in beautiful north central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435, (612) 835-5123. ■

Are you reading this ad?

So are thousands of others. Reach more than 6,000 physicians with a display ad in INDIANA MEDICINE, the journal of the Indiana State Medical Association.

For additional information on how to place an ad, contact INDIANA MEDICINE, 3935 N. Meridian St., Indianapolis, IN 46208, (317) 925-7545 or 1-800-969-7545.

Advertising index

Central Pharmaceuticals	424
Indiana Heart Institute	423
International Tours	405
Lilly, Eli & Co.	392
Lincoln National Life	428
Medical Communicators	425
Merck Sharp & Dohme	Covers
Methodist Hospital of Indiana	425
Palisades Pharmaceuticals	388
Physicians Billing Service of Indiana	417
Physicians' Directory	430
Physicians Insurance Co. of Indiana	Cover, 449
Roche Laboratories	387, 388, 389
Spectrum Emergency Care	384
Summer Trace	427
Terre Haute Autoplex	421
The Ear Institute of Indiana	421
U.S. Air Force	413
U.S. Army National Guard	402
U.S. Army Reserve	391
Van Ausdall + Farrar	403

In accepting advertising for publication, INDIANA MEDICINE has exercised reasonable precaution to ensure that only reputable, factual advertisements are included. However, we do not have facilities to make comprehensive or complete investigation, and the claims made by advertisers in behalf of goods, services, medicinal preparations, apparatus or physical appliances are to be regarded as those of the advertisers only. Neither sanction nor endorsement of such is warranted, stated or implied by the association.

Are you moving?

If so, please send change of address to the Indiana State Medical Association, Membership Department, 3935 N. Meridian St., Indianapolis, IN 46208, at least six weeks before you move.

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

County: _____

Office phone: _____ Home phone: _____

IMPORTANT - Attach mailing label from your last copy of INDIANA MEDICINE here:



VASOTEC®

(ENALAPRIL MALEATE | MSD)

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: Angioedema. Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed, caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: General Impaired Renal Function. As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nifedipine, calcium-channel blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy—Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome: Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Digoxin in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypotension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ¹⁴C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension), pulmonary embolism and infarction, pulmonary edema, rhythm disturbances, atrial fibrillation, palpitation.

Digestive: Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases were more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol%, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: Hypertension: In patients who are currently being treated with a diuretic, symptomatic hypotension may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed. If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium. (See PRECAUTIONS.)

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance ≥ 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dose may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg. The maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia: In patients with heart failure who have a serum sodium ≤ 131 mEq/L or with serum creatinine ≥ 3 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19380.

MSD
MERCK
SHARP
& DOHME



THERAPY THAT MAY BE AS SILENT AS HYPERTENSION ITSELF

VASOTEC is generally well tolerated and not characterized by certain undesirable effects associated with selected agents in other antihypertensive classes.

VASOTEC is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor. A diminished antihypertensive effect toward the end of the dosing interval can occur in some patients.

For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

FOR MANY
HYPERTENSIVE PATIENTS
ONCE-A-DAY

VASOTEC[®]
(ENALAPRIL MALEATE | MSD)





